

WCA Regulations

WCA Regulations Committee

WCA Regulations

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Notes

WCA Regulations

The WCA Regulations contain the full set of Regulations that apply to all official competitions sanctioned by the World Cube Association.

Previously, from the January 1st, 2013 release until the January 1st, 2025 release, the WCA Regulations were split into the WCA Regulations and the WCA Guidelines. The former contents of both documents were combined into the WCA Regulations for the July 17th, 2025 release.

Wording

Uses of the words "must", "must not", "should", "should not" and "may" match [RFC 2119](#).

Information on the Internet

Website of World Cube Association: www.worldcubeassociation.org

Original source of the WCA Regulations: www.worldcubeassociation.org/regulations

WCA Regulations in [PDF format](#)

Source

Development of the WCA Regulations is public [on GitHub](#) and the discussion is public [on the WCA Forum](#).

Contact

For questions and feedback, please contact the [WCA Regulations Committee \(WRC\)](#).

Labels

To be more informative, certain Regulations are classified using one of the following labels. Note that this should be treated as metadata, not as a description of importance.

- [ADDITION] Additional information to supplement other Regulations.
- [CLARIFICATION] Information to address any possible questions about the interpretation of the Regulations.
- [EXPLANATION] Information that clarifies the intent of Regulations.
- [RECOMMENDATION] Something that is not strictly mandatory, but that should be done if possible.
- [REMINDER] Information that may be addressed by other Regulations, but whose relevance is worth reiterating.
- [EXAMPLE] An example of how to apply a Regulation.

Contents

Note: Because Article and Regulation numbers are not reassigned when Regulations are deleted, there may be gaps in numbering.

Article 1: Officials

- 1a) A competition must include a WCA Delegate and an organization team (consisting of one or more individuals) with the following officials: judges, scramblers and score takers.
- 1b) The organization team of a competition is responsible for logistics before, during, and after the competition.
- 1c) The WCA Delegate is responsible for ensuring that the competition adheres to the WCA Regulations and any applicable WCA policies or requirements. The WCA Delegate may appoint other members of the organization team to carry out specific responsibilities on their behalf, but is ultimately accountable for how these responsibilities are carried out.
- 1c+) **[CLARIFICATION]** If there are multiple WCA Delegates designated for the competition, "the WCA Delegate" refers to any of them. "The WCA Delegate" also refers to anyone appointed by a designated WCA Delegate for a relevant responsibility of the WCA Delegate for the competition.
- 1c++) **[CLARIFICATION]** WCA Delegates may attend the competition without being designated to serve in the WCA Delegate role for the competition. "The WCA Delegate" does not refer to them unless they have been appointed with a relevant responsibility by a designated WCA Delegate for the competition (see [Regulation 1c+](#)).
- 1e) Each event must have one or more judges.
 - 1e1) A judge is responsible for executing the procedures of the event.
 - * 1e1a) A judge may judge multiple competitors simultaneously at the discretion of the WCA Delegate, as long as the judge is able to ensure that all WCA Regulations are followed at all times.
 - 1e2) Every competitor must be available for judging. If required to judge, a competitor may be excused only for a legitimate reason (e.g. being unfamiliar with a puzzle), at the discretion of the WCA Delegate. Penalty: disqualification from an event, multiple events, or all events at that competition (see [Regulation 2k](#)).
- 1f) Each event must have one or more scramblers. Exception: 3x3x3 Fewest Moves.
 - 1f1) A scrambler applies scramble sequences to prepare puzzles for attempts (see [Regulation A2](#)).
 - 1f2) Every competitor must be available for scrambling. If required to scramble, a competitor may be excused only for a legitimate reason (e.g. being unfamiliar with scrambling notation), at the discretion of the WCA Delegate. Penalty: disqualification from an event, multiple events, or all events at that competition (see [Regulation 2k](#)).
- 1g) Each event must have one or more score takers.
 - 1g1) A score taker is responsible for compiling results.
 - 1g2) Changes to the result on a score sheet are only permitted at the discretion of the WCA Delegate.
- 1h) Competitors in the same round of an event may compete as a single group or be divided into multiple groups.
- 1h+) **[RECOMMENDATION]** Competitors in the same group should use the same scramble sequences. Different groups should use different scramble sequences.
- 1h++) **[RECOMMENDATION]** All attempts in the final round of an event, as well as all 3x3x3 Fewest Moves attempts, should have the same scramble sequences for all competitors (i.e. only 1 group).
- 1h+++ **[ADDITION]** Competitors may request to compete at a time different to the scheduled time for the round in a separate group. The WCA Delegate should carefully consider the fairness and practicality of the situation before approving any such requests, and must ensure that such attempts follow [Regulation 9l](#) (i.e. they must start after all competitors have finished their attempts from any previous round of the same event, and finish before any competitor has started an attempt for any following round of the same event). Competitors requesting such accommodations should contact the organization team and WCA Delegate before the competition. Exception: such accommodations are not permitted for 3x3x3 Fewest Moves, which specifies its own limited accommodations in [Regulation E6](#).
 - 1h1) Scramblers and judges for a round must not scramble for/judge competitors in their own group before they have finished all of their attempts for the round. The following exceptions apply:
 - * 1h1a) For 3x3x3 Fewest Moves, judges may judge competitors in their own group before they have finished their attempt (i.e. while they are competing).
 - * 1h1a+) **[CLARIFICATION]** Judges who are competing in a 3x3x3 Fewest Moves attempt they are judging must not begin grading attempts until they have finished their own attempt. They may begin grading before the end of the 60 minutes if they have submitted their attempt early (see [Regulation E2b+](#)). They should get another judge to grade their own attempt.
 - * 1h1b) For 3x3x3 Multi-Blind, competitors may judge other competitors in their own group after they have finished their attempt.
- 1j) All officials may compete in the competition.
- 1k) Officials may serve multiple roles (e.g. organization team, WCA Delegate, judge, score taker, scrambler).

Article 2: Competitors

- 2a) Any person may compete in a WCA competition if they:

- 2a1) Comply with WCA Regulations.
- 2a2) Meet the competition requirements, which must be clearly announced before the competition.
- 2a3) Are not suspended from participation by the WCA.
- 2a4) Comply with all reasonable safety measures deemed necessary by the WCA Delegate, which must be clearly announced before the competition.
- 2b) Competitors below the age of 18 must obtain consent from their parent(s)/guardian(s) to register and compete.
- 2c) Competitors register by providing all information required by the organization team (including: name, country, date of birth, gender, contact information, selected events).
- 2c+) **[ADDITION]** First-time competitors must register using their legal name or the name they prefer to be called in real life. Last names must be legal last names.
 - 2c1) A competitor is not eligible to compete without a completed registration, as determined by the organization team and the WCA Delegate.
 - 2c2) Returning competitors must provide personal information consistent with their WCA profile. If a competitor wishes to change or update their personal information between competitions (e.g. a change of country, name, or gender), they must contact the WCA Results Team either directly or through a WCA Delegate.
 - 2c2+) **[CLARIFICATION]** A WCA profile is the collection of data related to a competitor, and includes their personal information (name, country, gender, and date of birth) as well as all their results in official WCA competitions.
- 2d) A competitor's name, country, gender, and competition results are considered public information. All other personal information is considered confidential, and must not be disclosed to outside organizations/persons without the consent of the competitor.
- 2d+) **[ADDITION]** Date of birth and contact information should be especially secured.
- 2d++) **[REMINDER]** If a third party (e.g. journalist) asks the organization team to be put in contact with any competitor(s), the competitor(s) must first be asked for consent.
- 2e) Competitors must represent a country of which they hold citizenship. The WCA Delegate should verify citizenship by means of documents or photos of documents (e.g. a passport) at their first competition. If a competitor is found ineligible to represent the country under which they have registered, the competitor may be disqualified retroactively and/or suspended, at the discretion of the WCA Board.
- 2e+) **[CLARIFICATION]** If a competitor holds multiple citizenships, they may choose which region to represent at their first competition.
- 2e++) **[ADDITION]** The WCA Delegate should also verify the name and date of birth by means of documents or photos of documents (e.g. a passport) of every new competitor at their first competition.
 - 2e1) The eligible countries are defined by the WCA List of Recognized Countries.
 - 2e2) Competitors may change their country at any point between competitions (see Regulation 2c2), as long as it has been at least one year since any previous change.
 - * 2e2a) Exception: If the competitor loses citizenship of the country which they were previously representing, they must change their country before or at their next competition.
 - * 2e2b) Exception: If the competitor has acquired a new citizenship within the calendar year, they may change their country to their new citizenship before or at their next competition.
 - 2e3) Competitors who have no citizenship may compete as "Stateless".
 - 2e3+) **[CLARIFICATION]** Stateless competitors have no national records and rankings, nor continental records and rankings.
- 2f) Competitors must obey venue rules and conduct themselves in a considerate manner.
- 2g) Competitors must remain quiet when inside the designated competition area. Talking is permitted, but must be kept at a reasonable level, and away from competitors who are actively competing.
 - 2g3) Competitors in a group in progress must not communicate with other competitors in the group about the scrambled states of the group, unless all such competitors are not eligible for any further attempts in the group. Penalty: disqualification of the competitor(s) from the event, at the discretion of the WCA Delegate. Exception: For 3x3x3 Fewest Moves and 3x3x3 Multi-Blind, competitors that have finished their attempt may share and discuss the scramble sequence(s) with other competitors in the group who have either finished their attempt or declined their attempt.
 - * 2g3a) For rounds where results are being entered live, the organization team may enforce that competitors are not permitted to view the results entered from their group until they have completed their attempts.
- 2h) Competitors must be appropriately dressed while in the competition venue. At the discretion of the WCA Delegate, competitors may be disqualified from the competition for inappropriate clothing.
- 2i) While inspecting or solving, competitors must not use electronics (e.g. cell phones, earbuds, additional lighting) apart from the Stackmat timer or stopwatch. Penalty: disqualification of the attempt (DNF). Any item which has any electronic component is considered electronic.

- 2i+) **[ADDITION]** Although the competitor may pick up a stopwatch to view the current time (when they are not blindfolded), they must not start, stop, pause, or otherwise interact with the timekeeping of the stopwatch. Exception: The competitor may stop the stopwatch at the end of their attempt if the judge is not immediately available (see [Regulation A6a1](#)).
- 2i++) **[ADDITION]** The organization team may provide the competitor an unofficial stopwatch for viewing the elapsed time (started together with the main stopwatch), in which case the competitor is not permitted to touch the official stopwatch. Exception: See the exception in [Regulation 2i+](#).
- 2i+++) **[REMINDER]** Bluetooth puzzles are considered electronic devices.
- 2i++++) **[CLARIFICATION]** The competitor is considered to be using an electronic device only if they are putting it to a particular purpose.
- 2i+++++) **[EXAMPLE]** Examples that are not considered using an electronic device: moving a camera, flipping over a phone, wearing a smartwatch.
- 2i++++++) **[EXAMPLE]** Examples of using an electronic device: pressing a camera button, checking a message on a phone or smartwatch.
- 2i+++++++) **[CLARIFICATION]** Devices which were previously electronic but have their electronic parts removed may be permitted, at the discretion of the WCA Delegate.
- 2i1) Competitors may use non-electronic aids that do not give an unfair advantage, at the discretion of the WCA Delegate. This includes:
 - * 2i1a) Medical/physical aids worn by the competitor (e.g. glasses, wrist brace). As an exception to [Regulation 2i](#), medical aids may be electronic if the competitor does not have comfortable non-electronic alternatives (e.g. if the competitor has a personal hearing aid or pacemaker).
 - * 2i1b) Earplugs and earmuffs (but not electronic headphones and earbuds).
 - * 2i1b+) **[CLARIFICATION]** This includes relevant devices which are switched off or disconnected.
 - * 2i1c) Non-electronic hand warmers.
 - * 2i1d) Food and drink.
- 2i2) Competitors may use cameras and/or microphones at the solving station at the discretion of the WCA Delegate, but the following restrictions apply from the start of the attempt until the competitor stops the solve. Penalty for breaking a restriction: disqualification of the attempt (DNF).
- 2i2+) **[CLARIFICATION]** The competitor may hold or wear a camera or microphone anywhere, as long as the live feed of the camera is not visible to the competitor.
 - * 2i2a) Each camera monitor must be blank or out of sight of the competitor. Exception: if a visible active monitor is discovered, completed attempts need not be disqualified if the competitor did not receive assistance from the monitor, at the discretion of the WCA Delegate (see [Regulation A5b](#)), however the competitor must not be permitted to perform any further attempts with such a monitor.
 - * 2i2c) The competitor must not press any buttons on these devices (e.g. for starting or stopping a recording).
- 2i4) Competitors should turn off all cell phone notifications while competing to avoid disturbing the competition.
- 2j) The WCA Delegate may disqualify a competitor from specific attempts and/or events.
 - 2j1) If a competitor is disqualified from an event for any reason, they are not eligible for any more attempts in the event.
 - * 2j1a) If the competitor has already started at least one attempt in a round before being disqualified from it, the results of all remaining attempts in the event are recorded as DNF. If the competitor has started no attempts (i.e. has no results or only has DNS results), no results are recorded.
 - 2j2) Results from attempts that are completed when the disqualification is applied, must not be disqualified. Exception: cheating or defrauding (see [Regulation 2k2a](#)).
 - 2j2+) **[EXAMPLE]** For example, if a competitor is disqualified from an event for failing to show up for the final round, their results from earlier rounds remain valid.
 - 2j2++) **[EXAMPLE]** If the WCA Delegate disqualifies a competitor during their third attempt in a round, only the third attempt and all following attempts in that event are disqualified, even if the circumstances that originated the disqualification occurred prior to this attempt.
 - 2j3) Specific completed attempts may be disqualified under the circumstances described in [Regulation 2k](#), only if the relevant incident occurred during the attempt.
- 2k) At the discretion of the WCA Delegate, a competitor may be disqualified from specific attempts and/or events (a single event, multiple events, or all events) if the competitor:
 - 2k1) Fails to check in or register in time for the competition.
 - 2k2) Is suspected of cheating or defrauding the officials during the competition.
 - * 2k2a) The WCA Delegate may disqualify any suspected results.

- 2k3) Behaves in a way that is unlawful/violent/indecent/unsafe, or intentionally damages venue facilities or personal property within the venue.
- 2k4) Distracts or interferes with others during the competition.
- 2k5) Fails to abide by WCA Regulations during the competition.
- 2k6) Does not fulfill the event's requirements (e.g. not knowing how to solve the puzzle). A competitor should not compete with the expectation of a DNF result or an intentionally poor result.
- 2k6+) **[CLARIFICATION]** WCA Delegates should only use their discretion to prevent competitors from being a severe detriment to the competition (e.g. wasting time and/or competition resources). Competitors should not be disqualified for a "poor" result when they are competing to the best of their abilities.
- 2l) A competitor may be disqualified immediately, or after a warning, depending on the nature and severity of the infraction.
 - 2l1) A disqualified competitor is not eligible for the refund of any expenses due to participating in the competition.
- 2n) Competitors may verbally dispute a ruling to the WCA Delegate.
 - 2n1) Disputes are only permitted during the competition (see [Regulation 9u](#)), within 30 minutes of the disputed incident and before the start of any following rounds of the relevant event.
 - 2n2) The WCA Delegate must resolve the dispute before the start of the next round of the event.
 - 2n3) The competitor must accept all final rulings of the WCA Delegate. Penalty: disqualification from the competition.
 - 2n3+) **[ADDITION]** The competitor may escalate their dispute after the competition by following the process described in the [Disputes Motion](#).
- 2s) Competitors with circumstances (e.g. disability) that may prevent them from abiding by one or more WCA Regulations may request special accommodations from the WCA Delegate. Competitors requesting such accommodations should contact the organization team and WCA Delegate at least two weeks before the competition.
- 2s+) **[REMINDER]** Special accommodations must be noted in the Delegate Report.
- 2s++) **[EXAMPLE]** Competitors whose circumstances (e.g. religion) do not allow them to compete on a specific date or time may be allowed to compete at a different time at the discretion of the WCA Delegate. The WCA Delegate should consider the availability of competition resources when attending such requests. This includes the possibility to provisionally compete in subsequent round(s) before the previous round(s) is (are) completed.
- 2s+++ **[EXAMPLE]** A competitor that can not use one of their hands to start the timer may receive assistance from the judge to start and stop the timer, or a competitor that cannot hear may receive their inspection warnings in a different way.
 - 2s1) Competitors whose circumstances result in it being impossible to follow regular competition procedures may have special accommodations. These cases should be brought up to the WCA Regulations Committee before being applied.
 - 2s1+) **[EXAMPLE]** Examples of such accommodations include: a blind competitor using a second hand to feel the pieces in 3x3x3 One-Handed or using a second puzzle with special pieces during memorization phase in 3x3x3 Blindfolded.
- 2t) Each competitor must be familiar with and understand the WCA Regulations before the competition.
- 2u) Competitors must be present and ready to compete when they are called to compete for an attempt. Penalty: disqualification from the event.
 - 2u1) Exception: A competitor who is not present in time for an individually scheduled attempt (e.g. a 3x3x3 Fewest Moves attempt, a 3x3x3 Multi-Blind attempt) may be considered to have declined that attempt (DNS), at the discretion of the WCA Delegate.
 - 2u1+) **[ADDITION]** The competitor may compete at the discretion of the WCA Delegate. The WCA Delegate must carefully consider the fairness of allowing it.
 - 2u2) Exception: For rounds with a cumulative time limit, a competitor who arrives late may compete with a reduced cumulative time limit, at the discretion of the WCA Delegate.

Article 3: Puzzles

- 3a) Competitors are responsible for providing their puzzles for the competition.
- 3a+) **[CLARIFICATION]** Competitors may use puzzles of any reasonable size, at the discretion of the WCA Delegate.
- 3a++) **[ADDITION]** By default, a competitor should use the same puzzle for consecutive attempts in a speed solving round. A competitor may switch puzzles between attempts, at the discretion of the judge or WCA Delegate.
- 3a+++ **[CLARIFICATION]** Competitors may borrow puzzles from other competitors privately, to use in competition.
 - 3a1) Competitors must be ready to submit their puzzles when they are called (see [Regulation 2u](#)).
 - 3a1+) **[CLARIFICATION]** Competitors may be disqualified if they do not have a puzzle ready to submit soon after they are called (e.g. if they planned to use a puzzle that another competitor is currently using, and therefore cannot submit a puzzle at the moment).
 - 3a2) Puzzles must be fully operational, such that normal scrambling is possible.
 - 3a3) Polyhedral puzzles must use a color scheme with one unique color per face in the solved state. Each puzzle variation must have moves, states, and solutions functionally identical to the original puzzle.

- 3a4) Puzzles must not have electronic components (e.g. Bluetooth or Wi-Fi capabilities, motors, sensors, lights). See [Regulation 2i](#).
- 3d) Puzzles must have colored parts, which define the color scheme of the puzzle and must be one and only one of the following: colored stickers, colored tiles, colored plastic, or painted/printed colors. All colored parts of a puzzle must be made of a similar material.
 - 3d1) For competitors with a medically documented visual disability, the following exceptions apply:
 - * 3d1a) Blind competitors may use textured puzzles with different textures on different faces. Each face should have a distinct color, to aid in scrambling and judging.
 - * 3d1b) Color blind competitors who cannot distinguish between the necessary number of colors may use colored parts with patterns, if it has been explicitly approved according to [Regulation 2s](#). Patterns may come from stickers or be drawn.
 - * 3d1b+) [\[CLARIFICATION\]](#) Patterns do not need to be present on every face, but only on faces where a distinct color cannot be found. Pieces must not have any features (e.g. textures, pattern irregularities) that significantly distinguish them from similar pieces.
 - 3d2) The colors of the colored parts must be solid, with one uniform color per face. Each color must be clearly distinct from the other colors.
- 3h) Modifications that enhance the basic concept of a puzzle are not permitted. Modified versions of puzzles are permitted only if the modification does not make any additional information available to the competitor (e.g. orientation or identity of pieces), compared to an unmodified version of the same puzzle.
- 3h+) [\[CLARIFICATION\]](#) Puzzles may be refined internally by sanding, lubrication, or modifications which improve stability (e.g. magnets).
- 3h++) [\[EXAMPLE\]](#) Examples of enhancements include: new moves are possible, normal moves are impossible, more pieces or faces are visible, colors on the backside of the puzzle are visible, moves are done automatically, or the puzzles have more/different solved states.
 - 3h1) "Pillowed" puzzles are permitted.
 - 3h2) Puzzles whose colored plastic is visible inside the puzzle (e.g. "stickerless" puzzles) are permitted. This does not include the following puzzles:
 - 3h2++) [\[CLARIFICATION\]](#) "Stickerless" puzzles that significantly differ from most mass-produced "stickerless" puzzles are only permitted at the discretion of the WCA Delegate.
 - * 3h2a) Puzzles with transparent parts that can reveal more information about the state of the puzzle. Exception: An overlay sticker or a logo (see [Regulation 3l](#)).
 - * 3h2a+) [\[ADDITION\]](#) Examples of transparent parts that do not reveal more information about the state of the puzzle: internal parts of the puzzle mechanism, transparent Clock cases.
 - 3h3) Any modifications to a puzzle that result in poor performance by a competitor are not grounds for additional attempts.
 - 3h4) For Clock, the following modifications are permitted:
 - 3h4+) [\[CLARIFICATION\]](#) For Clock, visual modifications that enhance the ability to determine the orientation of the puzzle are permitted, as traditional puzzle designs already provide this information.
 - * 3h4a) Custom "inserts" (the same shape and size as the traditional paper inserts) are permitted, at the discretion of the WCA Delegate. The inserts must have a clear indication of 12 o'clock that matches the original inserts.
 - * 3h4b) Puzzle design customizations that do not give an unfair advantage may be permitted, at the discretion of the WCA Delegate (e.g. checkerboard pattern clocks, faces with a custom design, tape on the side of the Clock).
 - * 3h4c) Customizations which distinguish pins from other pins of the same side are permitted, at the discretion of the WCA Delegate.
 - * 3h4d) Logos anywhere on the puzzle, as long as the inner clock faces remain uncovered.
 - 3h5) For Clock, loose pins (i.e. pins that can toggle or recede using gravity instead of being directly pressed) are not considered reasonable wear, and puzzles with such pins must not be permitted.
- 3j) Puzzles must be clean, and must not have any markings, elevated pieces, damage, or other differences that significantly distinguish any piece from a similar piece. Exception: a logo (see [Regulation 3l](#)).
- 3j++) [\[EXAMPLE\]](#) There is a [Visual Guide](#) available for [Regulation 3j](#).
 - 3j1) Puzzles are permitted to have reasonable wear, at the discretion of the WCA Delegate.
 - * 3j1a) Wear should be considered reasonable if it is a result of normal use of the puzzle and if it does not give significant additional information about the state of the puzzle (e.g. about the location of specific pieces).
 - 3j2) Definition: Two pieces are similar to each other if they are identical in shape and size, or mirrored in shape and identical in size.

- 3j3) Corrugated/textured parts which permit the orientation of pieces to be distinguished by feel are not permitted for blindfolded events.
- 3k) Puzzles should be approved by the WCA Delegate before use in the competition.
 - 3k1) If a non-permitted puzzle is found during a round, the competitor must not continue to use the puzzle, and must submit a replacement.
 - 3k2) Penalty for attempts done with puzzles which are not permitted: disqualification of the attempt (DNF). The following exceptions apply:
 - 3k2+) **[ADDITION]** The WCA Delegate should not apply a listed exception if they believe the competitor tried to use a non-permitted puzzle on purpose.
 - * 3k2a) If a non-permitted puzzle is found before a round is complete, affected results in the round may be replaced with extra attempts, at the discretion of the WCA Delegate.
 - * 3k2b) 3x3x3 Multi-Blind: if any puzzles are found to be non-permitted, such puzzles may be individually counted as unsolved (without disqualifying the entire attempt), at the discretion of the WCA Delegate.
 - * 3k2b+) **[CLARIFICATION]** If a non-permitted puzzle is found during the course of a 3x3x3 Multi-Blind attempt, the puzzle must not be exchanged or removed from the attempt and must be counted as unsolved if the entire attempt is not disqualified.
 - * 3k2b++) **[EXAMPLE]** Suppose the competitor attempts 10 puzzles and solves 8 successfully. If it is found that two solved puzzles and one unsolved puzzle are not permitted, the competitor is considered to have a result with 6 solved puzzles out of 10 (rather than DNF), at the discretion of the WCA Delegate.
- 3l) A puzzle may have one or more logos on a colored part. If it does, it must have at most one colored part with a logo or multiple logos. Exception: For 4x4x4 Blindfolded, 5x5x5 Blindfolded, and 3x3x3 Multi-Blind, a puzzle must not have any logos.
- 3l+) **[ADDITION]** Logos may feature any reasonable design that does not give a conspicuous advantage (e.g. encoding information that could be used to cheat), and leave the colored part clearly recognizable. Unconventional logos are only permitted at the discretion of the WCA Delegate.
- 3l++) **[CLARIFICATION]** Logos are permitted for 3x3x3 Blindfolded, but not any other blindfolded events, including 3x3x3 Multi-Blind.
 - 3l1) The logo must be placed on a center piece. Exceptions for puzzles that do not have center pieces:
 - 3l1+) **[CLARIFICATION]** On NxNxN puzzles, a center piece is any piece with a single colored part. For example, the 5x5x5 Cube has 9 center pieces on each face.
 - * 3l1a) For Pyraminx and 2x2x2, the logo may be on any piece.
 - * 3l1b) For Square-1, the logo must be on a piece in the equatorial slice.
 - 3l2) The logo may be embossed, engraved, or consist of an overlay sticker.
- 3m) All brands of puzzles and puzzle parts are permitted, as long as the puzzles comply with all WCA Regulations.

Article 4: Scrambling

- 4a) A scrambler applies scramble sequences to the puzzles.
- 4b) Competition scramble sequences must be generated using a current official version of an official WCA scramble program (available [via the WCA website](#)).
- 4b+) **[RECOMMENDATION]** The WCA Delegate should generate sufficient scramble sequences for the entire competition ahead of time, including spare scramble sequences for extra attempts.
- 4b++) **[REMINDER]** If the WCA Delegate generates any additional scramble sequences during the competition, the scramble sequences must be saved.
 - 4b1) Generated scramble sequences must not be inspected before the competition, and must not be filtered or selected in any way by the WCA Delegate.
 - 4b1+) **[REMINDER]** The WCA Delegate must never re-generate any scramble sequences to replace other ones for the purpose of filtering. For example, it is not permitted to glance at the scramble sequences for a competition and generate the entire set again in order to generate "fairer" scramble sequences.
 - 4b2) Scramble sequences for a group must be available only to the WCA Delegate before the start of that group, and only available to the WCA Delegate and the scramblers for the group until it is finished. Exception: For 3x3x3 Fewest Moves, competitors receive scramble sequences during the round (see [Article E](#)).
 - 4b2+) **[CLARIFICATION]** In general, all official scramble sequences should be kept secret during the competition and published together after the end of the competition. In some cases (e.g. world records), the organization team may wish to release specific scramble sequences sooner after the end of a group.

- 4b2++) **[ADDITION]** Competition organizers should ensure that scramblers, scramble sequences, and partially/fully scrambled puzzles are visually isolated from competitors (see [Regulation A2c](#)). For example, the scramblers may be located behind a wall, or a sufficiently high divider (e.g. a cardboard divider placed around the sides of a table where the scramblers are seated) may be used so that competitors are not able to see puzzles as the scramblers apply scramble sequences.
 - * 4b2a) The designated WCA Delegate for the competition must only give access to scramble sequences for future groups to other members of the organization team if they will be temporarily unavailable (e.g. competing themselves), and should give others access to the minimum possible amount of scrambles in this case.
- 4b3) Specification for a scramble program: An official scramble sequence must produce a random state from all states that require at least 2 moves to solve (equal probability for each state). The following additions/exceptions apply:
 - * 4b3a) For blindfolded events, the scramble sequence must orient the puzzle randomly (equal probability for each orientation).
 - * 4b3b) 2x2x2 Cube: The (random) state must require at least 4 moves to solve.
 - * 4b3c) Skewb: The (random) state must require at least 7 moves to solve.
 - * 4b3d) Square-1: The (random) state must require at least 11 moves to solve.
 - * 4b3e) 5x5x5 Cube, 6x6x6 Cube, 7x7x7 Cube, and Megaminx: sufficiently many random moves (instead of random state), at least 2 moves to solve.
 - * 4b3f) Pyraminx: The (random) state must require at least 6 moves to solve.
- 4b4) Each scramble sequence should be applied during a maximum time frame of 2 hours. This time frame starts when the scramble sequence is applied for the first time.
- 4b4+) **[CLARIFICATION]** All attempts that have been started within the time frame follow the standard solving procedure (i.e. they are not stopped when the time frame of the relevant scramble sequence expires).
- 4d) Scrambling orientation:
 - 4d+) **[CLARIFICATION]** Some puzzles use standard color schemes, except that white is replaced with black. In this case, black is the darkest color and must not be treated as white.
 - 4d++) **[ADDITION]** It is permitted for the puzzle to change its orientation when it is moved from the scrambler to the solving station, as long as no one is attempting to influence the randomness of the orientation (see [Regulation A2e1](#)).
 - 4d1) NxNxN Cubes and Megaminx are scrambled starting with the white face (if not possible, then the lightest face) on the top and the darkest adjacent green face (if not possible, then the darkest adjacent face) on the front.
 - 4d2) Pyraminx is scrambled starting with the yellow face (if not possible, then the lightest face) on the bottom and the green face (if not possible, then the darkest adjacent face) on the front.
 - 4d3) Square-1 is scrambled starting with the darker color on front (out of the 2 possible scrambling orientations).
 - 4d4) Clock is scrambled starting with either side in front and 12 o'clock pointing up.
 - 4d5) Skewb is scrambled starting with the white face (if not possible, then the lightest face) on top and the green face (if not possible, then the darkest adjacent face) on the front-left.
- 4g) After scrambling a puzzle, the scrambler must verify that the puzzle is scrambled correctly. If the puzzle state is wrong, the scrambler must correct it (e.g. by solving the puzzle and applying the scramble sequence again).
- 4g+) **[RECOMMENDATION]** After verifying the puzzle is scrambled correctly, the scrambler may pass the puzzle to another scrambler to verify. In this case, both scramblers should sign the scorecard.
 - 4g1) The following exceptions apply:
 - * 4g1a) For the 6x6x6 Cube, 7x7x7 Cube, and Megaminx, it is not necessary to correct the puzzle state, at the discretion of the WCA Delegate.
 - * 4g1b) For the 5x5x5 Cube, the scrambler should correct the puzzle state. If correcting the puzzle state would cause a severe detriment to the schedule, it is not necessary to correct it, at the discretion of the WCA Delegate.
 - * 4g1b+) **[CLARIFICATION]** For 5x5x5 Blindfolded, incorrect puzzle states must always be corrected.
 - * 4g1b++) **[RECOMMENDATION]** The WCA Delegate should use stronger discretion when determining whether or not incorrect puzzle states for 5x5x5 Cube need to be corrected.
 - 4g2) For Multi-Blind Solving, after scrambling all the cubes, the scrambler must verify there are no duplicate scrambles.

Article 5: Puzzle Defects

- 5a) Examples of puzzle defects include: popped parts, pieces twisted in place, and detached screws/caps/stickers.
- 5b) If a puzzle defect occurs during an attempt, the competitor may choose to either repair the defect and continue the attempt, or to stop the attempt. The competitor is not permitted to cause a puzzle defect intentionally, unless correcting a previous puzzle defect (see [Regulation 5b3b](#) and [Regulation 5b3c](#)). Examples of intentionally causing puzzle defects: removing an attached center cap, rotating a corner piece, peeling a sticker.

- 5b1) If a competitor chooses to repair the puzzle, they must repair only the defective parts. Tools and/or parts of other puzzles must not be used to repair the original puzzle. Penalty: disqualification of the attempt (DNF).
- 5b2) Any repair to a puzzle must not give the competitor an advantage in solving the puzzle. Penalty: disqualification of the attempt (DNF).
- 5b3) Permitted repairs:
 - * 5b3a) If any parts have fallen out or moved out of place, the competitor may place them back.
 - * 5b3b) If the competitor repairs the puzzle but finds that the puzzle is unsolvable later during the solve, they may disassemble and reassemble a maximum of 4 pieces to make the puzzle solvable.
 - * 5b3c) If the puzzle is unsolvable, and can be made solvable by rotating a single corner piece, the competitor may correct the corner piece by twisting it in place without disassembling the puzzle. If multiple corner pieces have been twisted as a result of puzzle defects, the competitor may correct these twists, as long as the number of pieces corrected by the competitor does not exceed the number of pieces twisted as a result of puzzle defects.
- 5b4) During a blindfolded phase (see [Regulation B4](#)), all repairs must be performed blindfolded. Penalty: disqualification of the attempt (DNF).
- 5b5) If some parts of the puzzle are physically detached or not fully placed at the end of the solve, the following regulations apply:
 - 5b5+) [\[EXAMPLE\]](#) Examples of parts physically detached, resulting in a solved state: one 3x3x3 center cap, one big cube center piece, an inner piece of a big cube.
 - 5b5++) [\[EXAMPLE\]](#) Examples of parts physically detached, resulting in a DNF: two 3x3x3 center caps, two big cube center pieces, a 3x3x3 edge piece, a 4x4x4 edge piece ("wing"), any combination of two pieces that both have colored parts.
 - * 5b5a) If one or more parts without colored faces are affected, the puzzle is considered solved.
 - * 5b5b) If one part with one colored face is affected, the puzzle is considered solved.
 - * 5b5c) If more than one part with one colored face is affected, the puzzle is considered unsolved (DNF).
 - * 5b5d) If one or more parts with more than one colored face are affected, the puzzle is considered unsolved (DNF).
 - * 5b5e) Regulations [5b5c](#) and [5b5d](#) supersede [5b5a](#) and [5b5b](#).
 - * 5b5f) If a part is partially detached or not fully placed, its final position is the closest position in which the affected piece would normally fit within the puzzle mechanism, considering the current state of the puzzle. If the final position renders the piece solved, the piece is not considered to be affected by the puzzle defect.
 - * 5b5f+) [\[EXAMPLE\]](#) There is a [Visual Guide](#) available for [Regulation 5b5f](#).
 - * 5b5f++) [\[EXAMPLE\]](#) A 4x4x4 Cube edge "wing" twisted on its spot is considered solved.
 - * 5b5f+++)[\[EXAMPLE\]](#) A corner affected by a corner twist is considered to be placed in a valid position, but such position does not render the piece solved.
 - * 5b5f++++)[\[CLARIFICATION\]](#) If there are multiple pieces partially detached or not fully placed, their final position is assessed one at a time. The piece that is closest to an open position is assessed first, and is then considered to occupy that position. This process is repeated until all partially detached or not fully placed pieces have been assessed.
- 5b6) Definition: A part is one or more fully connected components from a group of puzzle components that remain connected and do not move relative to each other during ordinary operation of the puzzle (e.g. a 3x3x3 center cap, a Pyraminx tip, a 3x3x3 corner piece missing one face, one face of a 3x3x3 corner piece).
- 5c+) [\[REMINDER\]](#) If a competitor has a puzzle defect, this does not grant them the right to an extra attempt.

Article 7: Environment

- 7b) Spectators must remain at least 1.5 meters away from the solving stations when they are in use.
- 7c) Lighting of the competition area must be given special attention. Lighting should be neutral, such that competitors can easily differentiate among the colors on the puzzles.
- 7e) The competition area must be smoke-free.
- 7f) Solving station:
 - 7f1) Definitions:
 - * 7f1a) Stackmat: The Speed Stacks Stackmat timer and a full-size compatible mat. Generation 3 Pro Timer, Generation 4 Pro Timer, and/or Generation 5 Pro Timer must be used for time measurement.
 - * 7f1a+) [\[CLARIFICATION\]](#) A full-size mat should have minimum dimensions of 30cm (left to right) by 25cm (front to back).
 - * 7f1b) Mat: The mat of the Stackmat.
 - * 7f1c) Timer: The timer of the Stackmat, or a stopwatch (for longer attempts).
 - * 7f1d) Surface: The flat surface on which the Stackmat has been placed. The mat is considered a part of the surface. The timer is not considered a part of the surface.

- 7f2) The Stackmat timer must be attached to the mat and placed on the surface, with the timer on the side of the mat nearest to the competitor.
- 7f3) The organization team should modify Stackmat timers to be more robust against common incidents, by making the buttons more difficult to press by accident (e.g. by attaching O-rings around the buttons) and securing the battery more firmly (e.g. by padding the battery compartment).
- 7f4) Generation 5 Pro Timer must be used in 2-pad mode.
- 7h) If competitors do not remain at the same station for all of their attempts in a round, the competition area must have one or more Competitor Waiting Areas. Exception: rounds with individually scheduled attempts.
 - 7h2) Definition: A Competitor Waiting Area is an area in which competitors in a group wait to be called to a solving station.
 - 7h2+) **[ADDITION]** Competitors in a Competitor Waiting Area who are waiting between attempts should not be able to see the puzzles of the competitors on stage.

Article 9: Events

- 9a) The WCA governs competitions for mechanical puzzles that are operated by twisting groups of pieces, commonly known as "twisty puzzles".
- 9b) The official events of the WCA are:
- 9b++) **[ADDITION]** Events other than those specified in [Regulation 9b](#) may be held during a competition, but will be considered unofficial and therefore will not be included in the official results of the competition.
 - 9b1) 3x3x3 Cube, 2x2x2 Cube, 4x4x4 Cube, 5x5x5 Cube, 3x3x3 One-Handed, Clock, Megaminx, Pyraminx, Skewb, and Square-1.
 - * 9b1a) Full round format for these events: "Average of 5".
 - * 9b1b) Cutoff format for these events: "Best of 2" cutoff phase for "Average of 5".
 - 9b2) 6x6x6 Cube and 7x7x7 Cube.
 - * 9b2a) Full round format for these events: "Mean of 3".
 - * 9b2b) Cutoff format for these events: "Best of 1" cutoff phase for "Mean of 3".
 - 9b3) 3x3x3 Blindfolded, 4x4x4 Blindfolded, 5x5x5 Blindfolded.
 - * 9b3a) Full round format for these events: "Best of 3".
 - * 9b3b) For these events, the WCA also recognizes "Mean of 3" rankings and records based on the times from "Best of 3" rounds.
 - * 9b3b+) **[CLARIFICATION]** The "Mean of 3" statistic does not affect the competitor's ranking in a "Best of 3" round (which is based on the best result). The WCA recognizes it outside of the competition format.
 - 9b4) 3x3x3 Fewest Moves.
 - * 9b4a) Full round formats for this event: "Best of X" (where X is 1 or 2) or "Mean of 3".
 - * 9b4b) Cutoff formats for this event: "Best of 1" cutoff phase for "Best of 2" or "Best of X" (where X is 1 or 2) cutoff phase for "Mean of 3".
 - 9b5) 3x3x3 Multi-Blind.
 - * 9b5a) Full round formats for this event: "Best of X" (where X is 1, 2, or 3).
 - * 9b5b) Cutoff formats for this event: "Best of X" (where X is 1 or 2) cutoff phase for "Best of Y" (where Y is 2 or 3, and $Y > X$).
- 9f) The results of a round are measured as follows:
 - 9f1) All timed results under 10 minutes, except for 3x3x3 Multi-Blind, are measured and truncated to hundredths of a second. All timed averages and means under 10 minutes are measured and rounded to the nearest hundredth of a second.
 - 9f1+) **[EXAMPLE]** If the timer displays 12.678 for an attempt, the original recorded time is 12.67 (drop any digit after a hundredth of a second). A judge may write the full-precision time on the score sheet (and keep the precision in the calculation of penalties), as long as the score taker truncates it for the official results.
 - 9f2) All timed results over 10 minutes, as well as all times for 3x3x3 Multi-Blind results, are measured and truncated to seconds. All timed averages and means over 10 minutes are measured and rounded to the nearest second (e.g. X.49 becomes X, X.50 becomes X+1).
 - 9f2+) **[ADDITION]** For 3x3x3 Multi-Blind, the judge should record the number of puzzles solved, the number of puzzles attempted, and the final time. For example, if the competitor solves 3 cubes out of 5 attempted cubes in 40 minutes and 30 seconds, the judge should write down 3/5 40:30.
 - 9f4) The result of an attempt is recorded as DNF (Did Not Finish) if the attempt is disqualified or unsolved/unfinished.

- 9f4+) **[CLARIFICATION]** The result of an attempt should be a DNF if the competitor began the attempt by indicating that they are ready (see [Regulation A3b2](#)) but the attempt was disqualified.
 - * 9f4a) If a competitor violates a regulation clearly enough that the attempt is certain to be disqualified, the judge should immediately stop the attempt. If the judge is uncertain or a dispute could be disruptive (e.g. because an extra attempt could delay the competition), the judge should consult the WCA Delegate.
- 9f5) The result of an attempt is recorded as DNS (Did Not Start) if the competitor was eligible for the attempt and did not start it (see [Regulation A3b2](#)).
- 9f5+) **[CLARIFICATION]** If the competitor did not qualify for an attempt (e.g. in a Cutoff Round), they have no result for the attempt.
- 9f6) For "Best of X" rounds, each competitor is allotted X attempts. The best result of these attempts determines the competitor's ranking in the round.
- 9f7) For "Best of X" rounds, a DNF or DNS is the worst possible result.
- 9f8) For "Average of 5" rounds, competitors are allotted 5 attempts. Of these 5 attempts, the best and worst attempts are removed, and the arithmetic mean of the remaining 3 attempts determines the competitor's ranking in the round.
- 9f9) For "Average of 5" rounds, one DNF or DNS is permitted to count as the competitor's worst result of the round. If a competitor has more than one DNF and/or DNS result in the round, their average result for the round is DNF.
- 9f10) For "Mean of 3" rounds, competitors are allotted 3 attempts. The arithmetic mean of the 3 attempts determines the competitor's ranking in the round.
- 9f11) For "Mean of 3" rounds, if the competitor has at least one DNF or DNS result, their average result for the round is DNF.
- 9f12) For "Best of X" rounds, rankings are assessed based on the best result per competitor. The following are used to compare results:
 - * 9f12a) For timed results, "better" is defined as the shorter time.
 - * 9f12b) For 3x3x3 Fewest Moves, "better" is defined as the shorter solution length.
 - * 9f12c) For 3x3x3 Multi-Blind, rankings are assessed based on the number of puzzles solved minus the number of puzzles not solved, where a greater difference is better. If the difference is less than 0, or if only 1 puzzle is solved, the attempt is considered unsolved (DNF). If competitors achieve the same result, rankings are assessed based on total time, where the shorter recorded time is better. If competitors achieve the same result and the same time, rankings are assessed based on the number of puzzles the competitors failed to solve, where fewer unsolved puzzles are better.
- 9f13) For "Mean of 3" and "Average of 5" rounds, rankings are assessed based on the ordering of the averages/means of the competitors, where "better" is the smaller recorded result.
- 9f14) For "Mean of 3" and "Average of 5" rounds, if two or more competitors achieve identical average/mean results, rankings are assessed based on the best attempt per competitor, where "better" is defined as the smaller recorded result.
- 9f15) Competitors who achieve the same result in a round receive an identical ranking for the round.
- 9g) A Cutoff Round is a round with a "Best of X" cutoff phase and a cutoff requirement (e.g. "Best of 2" with a cutoff requirement of strictly better than 2 minutes). If the competitor satisfies the cutoff requirement in at least one of their cutoff phase attempts, they are eligible for the remaining attempts. Attempts from the cutoff phase count towards the full round format.
- 9i) Results of official WCA competitions must be listed on the WCA world rankings.
 - 9i1) The WCA recognizes the following types of regional records: national records, continental records, and world records.
 - 9i2) All the results of a round are considered to take place on the last calendar date of the round. If a regional record is broken multiple times on the same calendar date, only the best result is recognized as breaking that regional record.
 - 9i3) If the WCA Regulations for an event are changed, existing regional records stand until they are broken under the new WCA Regulations.
- 9j) Each event must be held at most once per competition.
- 9k) All competitors may participate in all events of a competition, except in cases specifically approved by the WCA Competition Announcement Team.
- 9l) Each round must be completed before any following round of the same event can start. Exception: Extra attempts may be given at any point during a competition to replace an attempt that was initially invalid.
 - 9l1) An attempt is considered invalid if an extra attempt is required to be granted.
 - 9l1+) **[CLARIFICATION]** A DNF Result is generally considered a valid result. Extra attempts must not be given for using a non-permitted puzzle that is only found after the round is complete (see [Regulation 3k2a](#)).
 - 9l1++) **[EXAMPLE]** Examples of an invalid attempt: an attempt that was incorrectly scrambled, attempts where the results are no longer retrievable (e.g. a missing scorecard).

- 9m) Events must have at most four rounds.
 - 9m1) Rounds with 99 or fewer competitors must have at most two subsequent rounds.
 - 9m2) Rounds with 15 or fewer competitors must have at most one subsequent round.
 - 9m3) Rounds with 7 or fewer competitors must not have subsequent rounds.
- 9o) Cutoff Rounds count as one round when counting the number of rounds per event.
- 9p) If an event has multiple rounds, then:
 - 9p1) At least 25% of competitors must be eliminated between consecutive rounds of the same event.
 - 9p2) The competitors who advance to the next round must be determined by ranking (best X competitors) or by result (all competitors with a better result than X) in the preceding round.
 - 9p2+) [CLARIFICATION] Result refers to the single or average that determines the ranking of the corresponding round.
 - * 9p2a) For each round, advancement conditions must be announced before the round starts, and should not be changed after it has begun. Changes must be made at the discretion of the WCA Delegate, who must carefully consider the fairness of the change.
 - * 9p2b) Exception: For competitions designated as a National Championship or Continental Championship, the organization team may amend advancement conditions to reserve spaces for competitors representing the relevant region. A maximum of 8 spaces or 50% of spaces in the following round, whichever is the lower, may be reserved in this way. For a round with reserved spaces, the competitors advancing from the previous round are a reserved number of best competitors representing the relevant region, followed by the remaining best competitors representing any region.
 - * 9p2b+) [ADDITION] If there are not enough competitors representing the relevant region to fill the reserved spaces, they are replaced with the best competitors representing any region.
 - * 9p2b++) [ADDITION] For a competition designated as both a World Championship and a Continental Championship and/or National Championship, this exception does not apply. For a competition designated as both a Continental Championship and a National Championship, spaces may only be reserved for competitors representing the relevant continent.
 - * 9p2b+++) [RECOMMENDATION] Any use of reserved spaces should be clearly announced before the competition.
 - 9p3) If a qualifying competitor withdraws from a round, they may be replaced by the best-ranked non-qualifying competitor from the preceding round.
 - 9p3+) [CLARIFICATION] If a non-qualifying competitor would replace a qualifying competitor in this way, they may also withdraw, allowing the next best-ranked competitor to take their place.
 - 9p4) A competitor with results of only DNF and/or DNS is not eligible to advance.
- 9q+) [RECOMMENDATION] Events and rounds should have at least 2 competitors.
- 9s) Each round of each event must have a time limit (see Regulation A1a).
- 9t) If any change occurs to the results of a competitor after the competition has ended (e.g. score-taking mistake, retroactive penalty), such that the competitor should not have advanced to the next round (or was not allowed to take part in the round), all results of this competitor for all subsequent rounds must be removed (see Regulation 9u).
- 9t+) [EXPLANATION] Because of 9t1 and 9t2, rounds may look like they do not comply with 9p1, 9m1, 9m2 or 9m3. However, making changes to comply with these rules would affect innocent competitors, which is why the results must stay the same.
- 9t++) [ADDITION] If the change of results happens during the competition, this rule must also be applied. In that case, 9t1, 9t2 and 9t3 should also be followed, at the discretion of the WCA Delegate.
 - 9t1) If this makes a round no longer compliant with Regulation 9p1, results of other competitors must not be removed.
 - 9t2) If this makes a round no longer compliant with Regulation 9m1, 9m2 or 9m3, any subsequent round must not be removed.
 - 9t3) If any change occurs to the result of a competitor, such that another competitor should not have advanced to the next round, the result of the second competitor must not be removed.
 - 9t3+) [EXAMPLE] Suppose competitor A gets a 10.00 average and competitor B gets a 10.05 average in the first round of an event, such that competitor A advances to the final round but not B. If a score-taking mistake is discovered, and competitor B actually got a 9.95 average (and should have proceeded instead of A), competitor A keeps their result for the final round.
- 9u) A competition is considered to have ended if all the following requirements are met simultaneously:
- 9u+) [ADDITION] For competitions with multiple physical locations (i.e. "3x3x3 Fewest Moves simultaneous competitions"), all the requirements must be met in every location to consider the competition as ended.
 - 9u1) All the scheduled rounds on the WCA website are completed.

- 9u2) The WCA Delegate has announced the end of the competition. If the WCA Delegate does not announce the end of the competition, either of the following takes the place of this announcement (whichever comes first):
- 9u2+) **[RECOMMENDATION]** The WCA Delegate should announce the end of the competition (e.g. prior to the awards ceremony).
- * 9u2a) All the listed WCA Delegates permanently leave the venue.
- * 9u2b) The end of the last calendar date of the competition is reached.
- * 9u2b+) **[ADDITION]** The calendar date of the end of the competition is determined by the local time for the location in which the competition took place.

Article 10: Solved State

- 10b) Only the resting state of the puzzle, after the timer has been stopped, is considered.
- 10c) The puzzle may be in any orientation at the end of the solve.
- 10d) All parts of a puzzle must be physically attached to the puzzle and fully placed in their required positions. Exception: see [Regulation 5b5](#).
- 10e) A puzzle is solved when all colored parts are reassembled and all parts are aligned within the limits specified below:
 - 10e1) For every two adjacent parts (e.g. two parallel, adjacent slices of a cube) of the puzzle that are misaligned by more than the limit described in [Regulation 10f](#), the puzzle is considered to require one additional move to solve (see "Outer Block Turn Metric" in [Article 12](#)).
 - 10e1+) **[CLARIFICATION]** For Square-1, because of the shape-shifting property of the puzzle, the metric for misalignments defined in [Regulation 10f4](#) is different from the metric for the notation, used by the scramble program and defined in [Regulation 12c4](#).
 - 10e2) If no further moves are required to bring the puzzle to its solved state, the puzzle is considered solved without penalty.
 - 10e3) If one move is required, the puzzle is considered solved with a time penalty (+2 seconds).
 - 10e4) If more than one move is required, the puzzle is considered unsolved (DNF).
- 10f) Limits of acceptable misalignment for puzzles:
- 10f+) **[EXPLANATION]** The misalignment limits are selected so that they provide a natural cutoff between one state of a puzzle (without penalty) and a state one move away.
 - 10f1) NxNxN Cubes: at most 45 degrees.
 - 10f2) Megaminx: at most 36 degrees.
 - 10f3) Pyraminx and Skewb: at most 60 degrees.
 - 10f4) Square-1: at most 45 degrees (U/D) or 90 degrees (/).
 - 10f4+) **[CLARIFICATION]** When counting the moves in case of a misalignment at the end of a solve, X and Y are considered separately. Example: (5, 1) is considered one misalignment, (5, 5) is considered two misalignments.
- 10h) Puzzles not specified in this article are judged according to the solved state as defined by the generally accepted goal of the puzzle.
 - 10h1) The solved state of Clock is achieved when all eighteen inner clock faces point to 12 o'clock.
 - 10h1+) **[ADDITION]** The solved state of Clock is not affected by loose or popped pin caps.
 - * 10h1a) Inner clock faces that do not clearly point to a particular hour marker are considered to point to the nearest hour marker.

Article 11: Incidents

- 11a) Incidents include:
 - 11a1) Incorrect execution of event procedures, by officials or competitors.
 - 11a2) Interference or facility interruptions (e.g. power failure, emergency alarm activation).
 - 11a3) Equipment malfunction.
- 11b) If an incident occurs, the WCA Delegate determines an impartial and appropriate course of action.
- 11d) If the WCA Regulations are not fully clear or if the incident is not covered by the WCA Regulations, then the WCA Delegate must make a decision based on fair sportsmanship (also see [Regulation 11e3](#)).
- 11e) The WCA Delegate may grant a competitor an extra attempt to replace an attempt affected by an incident. The competitor should appeal verbally or in writing to the judge and WCA Delegate at the time of the incident, before finishing the original attempt, to be eligible for an extra attempt. An appeal does not guarantee the competitor an extra attempt.
- 11e+) **[CLARIFICATION]** Since an appeal is not guaranteed to be successful, the competitor may choose to keep the timer running while appealing it, and resume the solve when appropriate.
- 11e++) **[RECOMMENDATION]** The WCA Delegate should record the reason(s) for the extra attempt (e.g. on the back of the score sheet).

- 11e+++) [RECOMMENDATION] The WCA Delegate should use stronger discretion when granting an extra attempt after the solve is finished. The extra attempt should be granted only in exceptional circumstances.
- 11e++++) [REMINDER] The attempt is finished after the competitor checks the recorded result and signs on the score sheet (see Regulation A7c).
- 11e+++++) [ADDITION] If the WCA Delegate does not have time to investigate this claim during the competition, they should grant the competitor a provisional extra.
- 11e++++++) [ADDITION] An extra attempt is considered to be done at the time that the original solve happened. For example, if a round was originally scheduled for January 21st, and a competitor receives an extra on January 22nd, the extra solve is considered to be done on January 21st.
- 11e+++++++) [RECOMMENDATION] If an extra attempt is given for a round after a subsequent round has finished, and the extra attempt causes the competitor to advance to the next round, the competitor should not compete in the subsequent round, at the discretion of the WCA Delegate.
 - 11e1) If a competitor is granted an extra attempt, the extra attempt must be scrambled using a different scramble sequence. This scramble sequence must be generated using a current official version of an official WCA scramble program (see Regulation 4b).
 - 11e1+) [REMINDER] The extra attempt must be scrambled using an unmodified scramble sequence generated by an official scramble program (see Regulation 4b, Regulation 4b+).
 - 11e2) If a competitor is granted an extra attempt, the extra attempt should be done right after the attempt that caused it, and must replace the original regularly numbered attempt.
 - 11e2+) [ADDITION] If an extra attempt itself leads to an additional extra attempt, the competitor should keep doing extra attempts until there is a valid extra attempt to replace the original regularly numbered attempt.
 - 11e2++) [EXAMPLE] Suppose a competitor has 5 regularly numbered attempts, and #2 leads to extra attempts. The competitor should do extra attempts until there is a valid extra attempt to replace #2. Suppose later another attempt leads to extra attempts, the competitor should proceed in a similar way as for #2.
 - 11e3) If it is unclear whether an incident should result in an extra attempt, the competitor may be granted a provisional extra attempt that will be used only if it is later found that an extra attempt was appropriate (e.g. by a decision of the WRC).
- 11f) Decisions about an incident may be supported with video, photographic, or audio evidence, at the discretion of the WCA Delegate.
 - 11f1) Video, and similar forms of recorded evidence, should be reviewed in real time. Exception: slow-motion or frame-by-frame analysis may be used in the following circumstances:
 - 11f1+) [RECOMMENDATION] The WCA Regulations Committee should be consulted if slow-motion or frame-by-frame analysis are required.
 - * 11f1a) The individual result is a regional record or a personal record in the top 50 results of the world rankings.
 - * 11f1b) The average or mean the result is a part of is a regional record or a personal record in the top 50 results of the world rankings.
 - * 11f1c) The result is achieved in a final round of a National Championship, Continental Championship or World Championship.
 - * 11f1d) To support the removal of any penalty originally assessed by the judge or WCA Delegate see Regulation 11f2a.
 - 11f2) Evidence obtained from slow-motion or frame-by-frame analysis may only be used to support the following decisions:
 - * 11f2a) The removal of any penalty originally assessed by the judge or WCA Delegate.
 - * 11f2b) The application of a penalty according to Regulation A3c1, Regulation A4b, or Regulation A4b1.
 - * 11f2c) To investigate cheating (see Regulation 2k).
- 11g) The WCA Delegate must ensure that the Regulations are available (e.g. printed, digital, or accessible via internet) to officials and competitors for consultation on any incidents.
- 11h) A WCA Delegate may require competitors in serious violation of Regulation 2k3 to leave the competition venue, taking into account the seriousness of the situation and the best possible course of action. If the competitor refuses to do so, they may face disciplinary action in the WCA.
- 11i) If it is found that a competitor's puzzle was not scrambled correctly after they have completed their solve, the following regulations apply:
 - 11i1) In the following cases, an extra attempt must be granted to replace the affected attempt. If no extra attempt is granted, the result will be considered DNS:
 - 11i1+) [RECOMMENDATION] Competitors expected to meet these criteria should have their scrambles checked by a second scrambler before being sent out (see Regulation 4g+).

- * 11i1a) The individual result is a regional record, or is a personal record in the top 50 competitors of the world rankings.
- * 11i1b) The average or mean the result is a part of is a regional record, or part of a personal record in the top 50 competitors of the world rankings.
- * 11i1c) The result is achieved in a final round of a National Championship, Continental Championship or World Championship.
- * 11i1d) The result was achieved by solving the puzzle in fewer moves than the limits defined in [Regulation 4b3](#).
- * 11i1e) Exception: For 5x5x5 Cube, 6x6x6 Cube, 7x7x7 Cube, Megaminx, and 3x3x3 Multi-Blind, an extra attempt is not necessary to be granted under the circumstances described above.
- 11i2) For all other cases, the result may stand. Exception: the WCA Delegate may grant an extra attempt at their discretion if they believe this provides a significantly fairer outcome (e.g. the incorrect scramble received was extremely easy and the competitor achieved a new personal record, the incorrect scramble impacted the podium for an event, or the puzzle was deliberately scrambled incorrectly).
- 11i2+) **[RECOMMENDATION]** If the WCA Delegate is unsure whether or not the incorrect scramble provided a significantly less fair outcome than the original scramble, a provisional extra attempt should be granted.
- 11i2++) **[REMINDER]** Although individual results achieved on incorrectly scrambled puzzles may be allowed to stand, the WCA Delegate must ensure that incorrect scrambles do not become common.
 - * 11i2a) If an extra attempt would produce a significantly more fair outcome, the original attempt is considered invalid (see [Regulation 9l](#)).
 - * 11i2b) If an extra attempt cannot be awarded for an incorrect scramble leading to a significantly unfair outcome (for example, because the incorrect scramble is discovered after the competition) the result will be considered DNS.
- 11j) If a competitor incorrectly receives a scramble that they have already received (i.e. a duplicate scramble), the following regulations apply:
 - 11j1) If the competitor believes they received a duplicate scramble in inspection, they should stop their attempt and call over a WCA Delegate without applying any moves to the puzzle. A competitor should not be penalized for incorrectly reporting a duplicate scramble genuinely, at the discretion of the WCA Delegate.
 - 11j2) If the error is noticed during the group, the WCA Delegate should make an effort to give the competitor the correct scramble. An extra attempt may be given if the WCA Delegate is not certain what the correct scramble should be.
 - 11j3) If the error is noticed during the competition but after the group, the missing attempt must be replaced with an extra attempt.
 - 11j3+) **[REMINDER]** The scramble sequence used for the extra attempt must not be obtained from a previous group.
 - 11j4) If the error is only noticed after the competition, the result will be considered DNS.

Article 12: Notation

- 12a) Notation for NxNxN Cubes:
 - 12a1) Face Moves (outer slice):
 - * 12a1a) Clockwise, 90 degrees: F (front face), B (back face), R (right face), L (left face), U (upper face), D (bottom face).
 - * 12a1b) Counter-clockwise, 90 degrees: F', B', R', L', U', D'.
 - * 12a1c) 180 degrees: F2, B2, R2, L2, U2, D2.
 - 12a2) Outer Block Moves (outer slice with adjacent inner slices). For each of the moves defined below, n is the total number of slices to move, which must be in the range $1 < n < N$ (where N is the number of layers in the puzzle). n may also be omitted, for an implicit value of $n = 2$ slices. Outer Block Moves are:
 - 12a2+) **[CLARIFICATION]** For example, both Rw and 2Rw are valid notation for the same physical move for the 3x3x3 Cube. 1Rw is not valid notation for any NxNxN Cube, and 3Rw is not valid notation for the 2x2x2 Cube or the 3x3x3 Cube (but 3Rw is valid notation for the 4x4x4 Cube and larger NxNxN Cubes).
 - * 12a2a) Clockwise, 90 degrees: nFw, nBw, nRw, nLw, nUw, nDw.
 - * 12a2b) Counter-clockwise, 90 degrees: nFw', nBw', nRw', nLw', nUw', nDw'.
 - * 12a2c) 180 degrees: nFw2, nBw2, nRw2, nLw2, nUw2, nDw2.
 - 12a4) Rotations (entire puzzle):
 - * 12a4a) Clockwise, 90 degrees: x (same direction as R or L'), y (same direction as U or D'), z (same direction as F or B').
 - * 12a4b) Counter-clockwise, 90 degrees: x' (same direction as R' or L), y' (same direction as U' or D), z' (same direction as F' or B).
 - * 12a4c) 180 degrees: x2, y2, z2.

- 12a5) Outer Block Turn Metric (OBTM) is defined as:
 - * 12a5a) Each move of the categories Face Moves and Outer Block Moves is counted as 1 move.
 - * 12a5b) Each move of the Rotations category is counted as 0 moves.
- 12a6) Execution Turn Metric (ETM) is defined as: Each move of the categories Face Moves, Outer Block Moves, and Rotations is counted as 1 move.
- 12c) Notation for Square-1:
 - 12c1) Moves are applied with one of the two smallest surfaces of the equatorial slice on the left side of the front face.
 - 12c2) (X, Y) means: turn upper layer X times 30 degrees clockwise, turn bottom layer Y times 30 degrees clockwise. X and Y must be integers from -5 to 6, and cannot be both equal to 0.
 - 12c3) "/" means: turn the right half of the puzzle 180 degrees.
 - 12c4) Metric for Square-1: (X, Y) counts as one move, "/" counts as one move.
- 12d) Notation for Megaminx (scrambling notation only):
 - 12d1) Face Moves:
 - * 12d1a) Clockwise, 72 degrees: U (upper face).
 - * 12d1b) Counter-clockwise, 72 degrees: U' (upper face).
 - 12d2) Other moves are applied while keeping 3 pieces fixed at the top left of the puzzle:
 - * 12d2c) Clockwise 144 degrees move of the whole puzzle except for the slice of top left three pieces: R++ (vertical slices), D++ (horizontal slices).
 - * 12d2d) Counter-clockwise 144 degrees move of the whole puzzle except for the slice of top left three pieces: R-- (vertical slices), D-- (horizontal slices).
- 12e) Notation for Pyraminx:
 - 12e1) The puzzle is oriented with the bottom face completely horizontal and the front face facing the person who is holding the Pyraminx.
 - 12e2) Clockwise, 120 degrees: U (upper 2 layers), L (left 2 layers), R (right 2 layers), B (back 2 layers), u (upper vertex), l (left vertex), r (right vertex), b (back vertex).
 - 12e3) Counter-clockwise, 120 degrees: U' (upper 2 layers), L' (left 2 layers), R' (right 2 layers), B' (back 2 layers), u' (upper vertex), l' (left vertex), r' (right vertex), b' (back vertex).
- 12g) Notation for Clock:
 - 12g1) The puzzle is oriented with 12 o'clock on top, and either side in front.
 - 12g2) Move pins up: UR (top-right), DR (bottom-right), DL (bottom-left), UL (top-left), U (both top), R (both right), D (both bottom), L (both left), ALL (all).
 - 12g3) Turn a wheel next to an up-position pin and move all pins down afterwards: X+ (X clockwise turns), X- (X counter-clockwise turns).
 - 12g3+) **[REMINDER]** As clock scramble sequences end with an X+ or X- move, all pins are pushed down once the scramble sequence has been fully applied.
 - 12g4) Turn around the puzzle so that 12 o'clock stays on top, and then move all pins down: y2.
- 12h) Notation for Skewb:
 - 12h1) The puzzle is oriented with three faces fully visible, where the upper face is on top.
 - 12h2) Clockwise, 120 degrees: R (the layer around the farthest visible bottom-right vertex), U (the layer around the farthest visible upper vertex), L (the layer around the farthest visible bottom-left vertex), B (the layer around the farthest non-visible back vertex).
 - 12h3) Counter-clockwise, 120 degrees: R' (the layer around the farthest visible bottom-right vertex), U' (the layer around the farthest visible upper vertex), L' (the layer around the farthest visible bottom-left vertex), B' (the layer around the farthest non-visible back vertex).
- 12i) Definition: A move is considered to be any change to the puzzle state in terms of the notation defined above, including misalignments beyond the limits described in [Regulation 10f](#).
- 12i+) **[CLARIFICATION]** Rotations do not change the puzzle state.
 - 12i1) Exception: For Clock, only changes in the position of the inner clock faces are considered to be moves. Changes to the state of the pins are not considered to be moves.

Article A: Speed Solving

- A1) Speed Solving attempts must abide by the following procedures.
 - A1a) The organization team must apply at least one kind of time limit (time limit per attempt and/or cumulative time limit) to each round.

- A1a+) **[CLARIFICATION]** If both limits are applied, the time limit per attempt must not be greater than the cumulative time limit.
 - * A1a1) The default time limit is 10 minutes for each attempt in a round, though the organization team may announce a higher or lower time limit per attempt. In this case, the limit must be the same for all attempts in a round.
 - * A1a2) For events other than 3x3x3 Fewest Moves and 3x3x3 Multi-Blind, the organization team may define a cumulative time limit. The cumulative time limit must either apply to all attempts in one round (e.g. 3 attempts with a cumulative time limit of 20 minutes), or to all attempts in a combination of rounds for different events. In this case, the time limit for a particular attempt is the time limit or the cumulative time limit minus the total time in other attempts counting towards the time limit so far (see [Regulation A1a5](#)), whichever is lower. If a round has an applicable cumulative time limit, it must have at most one.
 - * A1a2+) **[ADDITION]** In case of a cumulative time limit, the judge records the original recorded time for a DNF on the score sheet in parentheses, e.g. "DNF (1:02.27)".
 - * A1a2++) **[EXAMPLE]** If a round has only a cumulative time limit of 30 minutes and the competitor's results of the first two attempts are 6:00 and DNF (10:00), then the time limit for the third attempt is $30:00 - 6:00 - 10:00 = 14:00$. For this particular example, note that only the final result for an attempt counts. Therefore, a third attempt with an original recorded time of 13:59 without penalties meets the time limit because the final result is 13:59 (see [Regulation 9f2](#)), while a third attempt with a result of $13:59 + 2 = 14:01$ does not meet the time limit.
 - * A1a2+++) **[ADDITION]** If the result from an attempt is unavailable (e.g. the timer was reset), the judge should consult the WCA Delegate and make an estimate of the elapsed time for the attempt. This estimate counts towards the time limit, but must not be used as the basis of an official result for the individual attempt.
 - * A1a2++++) **[EXAMPLE]** If a round has a cumulative time limit of 20 minutes and a time limit of 8 minutes, and the competitor's results of the first two attempts are 7:00 and 7:30, then the time limit for the third attempt is the lower time of 5:30 (calculated as $20:00 - 7:00 - 7:30$) and 8:00, i.e. 5:30.
 - * A1a2+++++) **[CLARIFICATION]** If a competitor reaches a cumulative time limit, the result for each of their remaining attempts in the round is recorded as DNS (Did Not Start).
 - * A1a2++++++) **[CLARIFICATION]** If a cumulative time limit applies to a combination of rounds for different events, the order in which attempts are done is the order in which those attempts count towards the cumulative time limit.
 - * A1a3) The time limits for all rounds must be announced before the competition, and should not be changed after any affected rounds have begun. Changes must be made at the discretion of the WCA Delegate, who must carefully consider the fairness of the change.
 - * A1a3+) **[REMINDER]** The organization team and the WCA Delegate must be mindful that time limits influence the strategies of the competitors (e.g. rushing the first two attempts in hopes of meeting a cutoff in a cutoff round), and that changing time limits after the start of the round can disadvantage some competitors unfairly.
 - * A1a4) The competitor must end each solve before the time limit for the attempt is reached. If a competitor's timer reaches the time limit for an attempt, the judge stops the solve immediately and records the result as DNF. Exception: 3x3x3 Multi-Blind (see [Regulation H1b1](#)).
 - * A1a4+) **[REMINDER]** If a competitor has accidentally been permitted to exceed the time limit, the time limit must be enforced retroactively, and the judge, competitor, and WCA Delegate should be informed (see [Regulation 1g2](#)). Judges must always be aware of the time limit for a current attempt (which might depend on previous attempts, in the case of a cumulative time limit).
 - * A1a5) The time counting towards the time limit for an attempt is either the result after time penalties are applied (if the result was not DNF) or the time elapsed in the solve (if the result was DNF).
- A1b) If the time limit for an attempt is greater than 10 minutes, a stopwatch must be used for timekeeping.
 - * A1b1) A Stackmat must be used in addition to the stopwatch. Exception: for events without inspection where the competitor is expected to exceed 10 minutes, use of the Stackmat is optional.
 - * A1b2) If a time from the Stackmat timer is available, it is the original recorded time. Otherwise (e.g. the Stackmat timer malfunctioned, ran for over 10 minutes or was not used at all), the stopwatch time is the original recorded time.
- A1c) A competitor participating in an event must be able to fulfill the event's requirements (see [Regulation 2k6](#)).
- A2) Scrambling:
 - A2a) When called for a round, the competitor submits a solved puzzle to the scrambler.
 - * A2a1) If a Competitor Waiting Area is in use, the competitor must remain within their assigned Competitor Waiting Area until they are called to complete an attempt. The competitor must return to their assigned Competitor Waiting Area after completing each attempt if they have more attempts in the round. Exception: competitors may leave the Competitor Waiting Area with permission from the WCA Delegate. Penalty: disqualification of the remaining attempts (DNF), at the discretion of the WCA Delegate.

- * A2a2) If a Competitor Waiting Area is not in use, the competitor must remain at their assigned solving station until they have completed all their attempts in the round. Exception: competitors may leave their assigned solving station with permission from the WCA Delegate. Penalty: disqualification of the remaining attempts (DNF), at the discretion of the WCA Delegate.
- * A2a3) Once called for a round, a competitor must not attempt to enter any area assigned for scrambling until all competitors in their group have no further attempts, unless permission has been granted by the WCA Delegate.
- * A2a3+) [REMINDER] Competitors should not be permitted to view the scramble sequences for their own group even after having completed all their attempts, unless permission has been granted by the WCA Delegate (see Regulation 4b2+).
- A2b) A scrambler scrambles the puzzle according to the regulations in Article 4.
 - * A2b1) For Square-1, the organization team may enforce placing a thin object in the puzzle to prevent accidental moves from being applied before the start of the attempt. If these objects are used, the organization team should make an announcement before the round starts.
- A2c) After the scrambler starts scrambling the puzzle, the competitor must not see the puzzle until the inspection phase starts.
 - * A2c1) The scrambler places a cover over the scrambled puzzle that makes it impossible for any competitors or spectators to see any part of the puzzle. The cover remains over the puzzle until the start of the attempt.
 - * A2c1+) [REMINDER] In the past, score sheets have been used to cover puzzles while leaving some sides exposed. This is no longer permitted.
 - * A2c2) When competing, competitors must not actively try to watch another competitor complete an official attempt. If the competitor watches another competitor attempt a scramble they have not yet received, the corresponding attempt is recorded as DNF.
 - * A2c2+) [REMINDER] If the competitor accidentally views a scramble they have not yet received, the competitor must not receive that scramble for their own attempt and an extra attempt must be granted instead.
- A2d) When taking a puzzle from the scrambler, the judge briefly inspects the puzzle to ensure thorough scrambling of the puzzle. The judge raises any concerns with the scrambler, who then conducts a detailed check.
 - * A2d1) The scrambler or an authorized judge must check the scrambled puzzle, and sign the score sheet to affirm that they applied the correctly-numbered scramble sequence and checked that it matches the image (see Regulation 4g). Exception: for 6x6x6 Cube, 7x7x7 Cube, and Megaminx the scrambler may sign to affirm that the puzzle is sufficiently scrambled (see Regulation 4g1). Scrambler signatures should be consistent throughout the competition and should identify the scrambler.
 - * A2d1+) [ADDITION] If the scramble signature is found to be missing before an attempt, the puzzle should immediately be returned to a scrambler for verification and a corresponding signature.
 - * A2d1++) [ADDITION] An attempt must not be disqualified solely due to a missing scramble signature. If a scramble signature is missing after the beginning of an attempt, the judge must allow the attempt to continue (if it is still in progress) and the WCA Delegate should allow the result to be kept.
 - * A2d1++++) [REMINDER] Although the WCA Delegate may allow several individual attempts with missing scramble signatures to count, they should ensure that missing scramble signatures do not become common.
- A2e) The judge places the puzzle onto the mat in an arbitrary orientation while ensuring that it remains completely covered.
 - * A2e1) The competitor is not permitted to request a specific orientation, and the judge must not influence the orientation they place the puzzle on the mat based on what they know or expect the puzzle state to be.
 - * A2e2) The competitor must not remove the cover themselves. Penalty: disqualification of the attempt (DNF).
- A3) Inspection:
 - A3a) The competitor may inspect the puzzle at the start of each attempt.
 - * A3a1) The competitor is allotted strictly less than 15 seconds to inspect the puzzle and start the solve.
 - A3b) The judge prepares the timer by turning it on and resetting if necessary. If a Generation 5 Pro Timer is in use, the judge must ensure it is set to 2-Pad mode. Separately, the judge also prepares a stopwatch for timing inspection (see Regulation A4d).
 - * A3b1) When the judge believes the competitor is ready, the judge asks "READY?". The competitor must be ready to start the attempt within one minute from the moment they are asked, or else the competitor forfeits the attempt (DNS), at the discretion of the judge.
 - * A3b2) The competitor starts the attempt by confirming that they are ready, and the judge uncovers the puzzle and starts timing the inspection.
 - * A3b3) When 8 seconds of inspection have elapsed, the judge calls "8 SECONDS".
 - * A3b4) When 12 seconds of inspection have elapsed, the judge calls "12 SECONDS".

- * A3b5) The judge stops timing inspection as soon as the competitor lifts their hands and starts the timer (see [Regulation A4d](#)).
- A3c) The competitor may pick up the puzzle during inspection.
 - * A3c1) The competitor must not apply moves or intentional changes in alignment during inspection. Penalty: disqualification of the attempt (DNF). Exception: see [Regulation A3c2](#) and [Regulation A3c5](#).
 - * A3c1+) [\[CLARIFICATION\]](#) For Clock, the competitor may change the state of the pins during inspection (see [Regulation 12i1](#)).
 - * A3c2) If the parts of the puzzle are not fully aligned when the cover is removed, then the competitor may align the faces, as long as misalignments stay within the limits of [Regulation 10f](#).
 - * A3c3) The competitor may reset the timer before the start of the solve.
 - * A3c3+) [\[CLARIFICATION\]](#) The competitor may reset the timer before/during the inspection phase if the judge accidentally neglected to do so. However, it is the responsibility of the judge to make sure the timer has been reset (see [Regulation A3b](#)). If the competitor accidentally tries to start the solve with a timer that the judge did not reset (i.e. the competitor performs inspection, places hands on the Stackmat timer for a reasonable length of time, assumes that the timer will start normally, and starts to operate the puzzle), the attempt should be replaced by an extra attempt, at the discretion of the WCA Delegate.
 - * A3c3++) [\[CLARIFICATION\]](#) The competitor cannot "test" or "restart" the timer during inspection, since inspection ends once the competitor starts the solve (see [Regulation A4d](#)). If the competitor stops the timer after they have started it for the first time, this is considered stopping the solve (see [Regulation A6](#)), even if they do so within 15 seconds of starting inspection.
 - * A3c4) For Square-1, if the use of a thin object inside the puzzle has been enforced by the organization team (see [Regulation A2b1](#)), the competitor may remove the object from the puzzle during inspection.
 - * A3c4+) [\[CLARIFICATION\]](#) If the use of a thin object inside the puzzle has been enforced, the judge must not remove the object on behalf of the competitor.
 - * A3c4++) [\[CLARIFICATION\]](#) The competitor may remove the object during the solve, if they did not do it during the inspection (e.g. they forgot).
 - * A3c5) For Square-1, the competitor should not be penalized for any accidental move made within the limits of [Regulation 10f](#).
- A3d) At the end of the inspection, the competitor places the puzzle on the mat, in any orientation. The puzzle must be placed fully on the mat and must not be fully or partially resting on the Stackmat timer. Penalty: time penalty (+2 seconds).
- A4) Starting the solve:
 - A4b) The competitor uses their fingers to touch the elevated sensor surfaces of the Stackmat timer. The competitor's palms must be facing down, and located on the side of the timer that is closer to the competitor. Penalty: time penalty (+2 seconds).
 - * A4b1) The competitor must have no physical contact with the puzzle while starting the solve. Penalty: time penalty (+2 seconds).
 - A4d) If a Stackmat timer is in use, the competitor should keep their hands on the timer until they see a green timer light. The timer is started when they remove their hand(s) from the timer. The competitor starts the solve by starting the timer.
 - * A4d1) The competitor must start the solve within 15 seconds of the start of the inspection. Penalty: time penalty (+2 seconds).
 - * A4d1+) [\[CLARIFICATION\]](#) If the inspection took exactly 15 seconds (i.e. 15.00), the time penalty (+2 seconds) must be applied.
 - * A4d2) The competitor must start the solve within 17 seconds of the start of the inspection. Penalty: disqualification of the attempt (DNF).
 - * A4d2+) [\[CLARIFICATION\]](#) If the inspection took exactly 17 seconds (i.e. 17.00), the attempt must be disqualified (DNF).
 - * A4d3) If a stopwatch is in use, the judge starts the stopwatch as soon as the competitor starts the solve.
 - A4e) Time penalties for starting the solve are cumulative.
- A5) During the solve:
 - A5a) While inspecting or solving the puzzle, the competitor must not communicate with anyone other than the judge or the WCA Delegate. Penalty: disqualification of the attempt (DNF). Exception: If the competitor does not gain an advantage by communicating with anyone other than the judge or the WCA Delegate, the result may stand, at the discretion of the WCA Delegate.
 - A5b) While inspecting or solving the puzzle, the competitor must not receive assistance from anyone or any object other than the surface (also see [Regulation 2i](#)). Penalty: disqualification of the attempt (DNF).

- A5b+) **[CLARIFICATION]** While inspecting or solving the puzzle, the competitor may touch the puzzle with any part of their body. Exception: 3x3x3 One-Handed (see [Regulation C1b](#)).
- A5b++) **[CLARIFICATION]** If a part of the competitor's puzzle is popped out or detached (see [Regulation 5a](#)), the competitor must not ask for assistance retrieving or locating the part and the judge should attempt to prevent others from assisting. If someone picks up a popped part for the competitor, the judge or competitor may ask them to place it on the solving station and not to assist any further.
- A5b++++) **[CLARIFICATION]** The WCA Delegate should not grant the competitor an extra attempt solely based on someone picking up a popped or detached part of the competitor's puzzle.
- A5c) The competitor may hold the puzzle against the surface to help operate the puzzle (see [Regulation 7f1d](#)).
- A6) Stopping the solve:
 - A6a) The competitor releases the puzzle before stopping the solve, and stops the solve by stopping the timer. If a stopwatch is in use, the judge stops the stopwatch as soon as the competitor does this.
 - * A6a1) If the judge is not immediately available to stop the stopwatch when a stopwatch is in use, the competitor may stop the stopwatch.
 - A6b) The competitor is responsible for stopping the Stackmat timer correctly.
 - * A6b1) If the timer stops before the competitor has solved the puzzle and the timer shows a time strictly below 0.06 seconds, then the attempt is replaced by an extra attempt. Exception: No extra attempt is required if the WCA Delegate determines that the timer was stopped deliberately, or as a result of interacting with the timer in an unusual way (e.g. making only minimal contact with the timer, not lifting the hands cleanly away from the timer).
 - * A6b1+) **[EXPLANATION]** The arbitrary value of 0.06 seconds was chosen to accommodate concerns about Stackmat timer malfunctions.
 - * A6b2) If the timer stops before the competitor has solved the puzzle and displays a time of 0.06 seconds or higher, then the attempt is disqualified (DNF). Exception: The WCA Delegate may provide an extra attempt if they believe the timer may have malfunctioned and the competitor did not stop the timer deliberately.
 - A6c) The competitor must fully release the puzzle before stopping the timer. Penalty: disqualification of the attempt (DNF). Exception: If no move or any change in alignment has been applied after stopping the timer and before releasing the puzzle, a time penalty (+2 seconds) may be assigned instead, at the discretion of the judge.
 - A6d) The competitor must stop the Stackmat timer using both hands, placed flat on the sensors with palms down. Penalty: time penalty (+2 seconds).
 - A6e) After stopping the timer, the competitor must not touch, apply a move, or make any change in alignment to the puzzle, until the judge has inspected the puzzle.
 - A6e+) **[CLARIFICATION]** If the puzzle falls into the lap of the competitor after stopping the timer, this is considered touching the puzzle.
 - A6e++) **[CLARIFICATION]** If [Regulation A6c](#) is used to penalize an attempt, the penalties in [Regulation A6e](#) should only be applied if the competitor releases the puzzle and touches it again before the judge inspects it.
 - * A6e1) Penalty for applying a move to the puzzle after stopping the timer: disqualification of the attempt (DNF).
 - * A6e2) Penalty for touching the puzzle after stopping the timer without applying any moves: time penalty (+2 seconds). Exception: if immediately after stopping the timer, the competitor briefly touches the puzzle without affecting its state, the time penalty may be lifted, at the discretion of the judge (see [Regulation 11f](#)).
 - A6f) The competitor must not reset the timer until both the competitor and the judge have signed the score sheet. Penalty: disqualification of the attempt (DNF), at the discretion of the judge. Exception: see [Regulation A7c5](#).
 - * A6f1) If the competitor resets the timer before the result has been completely recorded, the judge must not write down the result from memory or from video or photographic evidence, and must disqualify the attempt instead (DNF).
 - A6g) The judge determines whether the puzzle is solved. If the puzzle is misaligned, it must not be touched before the judge has determined its final state.
 - A6h) In case of a dispute, moves or alignments must not be applied to the puzzle before the dispute is resolved.
 - A6i) Time penalties for stopping the solve are cumulative.
- A7) Recording results:
 - A7a) The judge tells the competitor the result.
 - * A7a1) The judge should indicate to the competitor that the puzzle is solved, or that a penalty will be applied.
 - A7b) The judge records the result on a score sheet and signs next to the result to acknowledge that the result is correct, complete, properly formatted, and clearly readable. Judge signatures should be consistent throughout the competition and should identify the judge.

- * A7b1) If penalties are assigned, the judge records the original recorded time displayed on the timer, along with any penalties. The format should be "T + X = F", where T represents the time displayed on the timer (the "original recorded time"), X represents a sum of time penalties during the attempt, and F represents the final result (e.g. $17.65 + 4 = 21.65$).
- A7c) The competitor must check the recorded result, and sign the score sheet to acknowledge that the result is correct, complete, properly formatted, and clearly readable. This finishes the attempt.
- A7c+) **[ADDITION]** If a result signed by a competitor is found to be incomplete or unreadable, it should be interpreted the worst reasonable way (e.g. "1:05" will be considered 1:05.99, "25.X3" will be considered 25.73 if X could be either a 1 or a 7). Given that the Stackmat timer displays a time of X:0Y.ss as X:Y.ss, a missing tens digit should be considered more likely than a missing ones digit (e.g. "1:2.27" will be considered 1:02.27). The judge who signed an ambiguous result may be requested to clarify it, at the discretion of the score taker.
 - * A7c1) If the competitor or the judge refuses to accept and sign the score sheet, the WCA Delegate must resolve the dispute.
 - * A7c2) If the competitor intentionally signs (or otherwise marks) an attempt before they have begun it, they forfeit the attempt and the result will be considered DNS. Exception: for 3x3x3 Multi-Blind, the competitor may write the number of cubes they are attempting on the scorecard.
 - * A7c3) If the competitor signs (or otherwise marks) an attempt after starting the attempt but before the judge has finished recording the result, the attempt will be considered unfinished (DNF).
 - * A7c4) The competitor should not sign an attempt before the judge has recorded and signed the attempt. The competitor is ultimately responsible for ensuring that they and the judge have signed an attempt. If an attempt is found to be missing one or both signatures after the judge delivered the score sheet to the score taker (see [Regulation A7f](#)), it will be considered unfinished (DNF).
 - * A7c5) Missing signatures found before the end of the competition (see [Regulation 9u](#)) may be added by the judge and/or the competitor, at the discretion of the WCA Delegate.
 - * A7c6) Competitor signatures should be consistent throughout the competition and should identify the competitor. Competitors must not intentionally sign incorrectly. Penalty: disqualification of the attempt (DNF), at the discretion of the WCA Delegate.
 - * A7c6+) **[EXAMPLE]** Examples of signatures that identify the competitor: Name, initials, WCA ID, competition registrant ID, a reasonable nickname.
 - * A7c6++) **[EXPLANATION]** A competition registrant ID is an identifier (e.g. a number) assigned to a competitor for the competition. Some competitions use this to keep track of score sheets and enter results.
 - * A7c6+++)**[RECOMMENDATION]** The organization team may request competitors to sign with one particular method of identification (e.g. competition registrant ID), but competitors should not be disqualified for using a different method when signing.
 - * A7c6++++)**[ADDITION]** Competitors should use the same signature when they are judging and/or scrambling at the competition.
 - * A7c7) The competitor should not mark the score sheet anywhere other than in the area provided for them to sign.
 - * A7c8) If a signature was missed due to the inexperience of the competitor, it may be added at any time, at the discretion of the WCA Delegate. If it is no longer possible for the scorecard to be physically signed by the competitor or the judge, an attestation that the result was correctly recorded may be accepted as a signature, at the discretion of the WCA Delegate.
- A7f) When a competitor's score sheet for a round is complete, the judge delivers the score sheet to the score taker.
- A7g) At the discretion of the WCA Delegate, an incident or penalty caused by a competitor's inexperience may be replaced with an extra attempt.
- A7g+) **[EXAMPLE]** Examples of incidents that could grant a competitor an extra attempt due to inexperience: not waiting for the green light, improperly starting or stopping the timer, going over inspection time due to misunderstanding how to start a solve, or other procedural time penalties.
- A7g++) **[CLARIFICATION]** Individual penalties cannot be waived. A full extra attempt must be granted.
- A7g+++)**[RECOMMENDATION]** The WCA Delegate should use stronger discretion when granting more than one extra attempt to the same competitor. If more than one extra attempt is granted, it should be for a different type of incident. Example: if the WCA Delegate already awarded an extra attempt for a competitor who did not wait long enough for the green light, they should not award another extra attempt if that competitor fails to wait long enough for the green light again.
- A7g++++)**[CLARIFICATION]** A competitor may be considered inexperienced if they are a new competitor, it is their first time competing in a specific event, or they have not competed in a specific event for a significant period of time. The inexperience must be related to the incident.

Article B: Blindfolded Solving

- B1) Standard speed solving procedures are followed, as described in [Article A](#) (Speed Solving). Additional regulations that supersede the corresponding procedures in [Article A](#) are described below.
- B1+) [\[REMINDER\]](#) The competitor must use a puzzle without textures, markings, or other features that distinguish similar pieces (see [Regulation 3k](#)). This should be given special attention for Blindfolded Solving. Exception: For 3x3x3 Blindfolded, the puzzle may have any logos permitted by [Regulation 3l](#).
 - B1a) There is no inspection period (i.e. the solve starts at the same time as the attempt).
 - B1b) The competitor supplies their own blindfold.
 - B1b+) [\[RECOMMENDATION\]](#) Blindfolds should be checked by the WCA Delegate before use in the competition.
- B2) Starting the attempt:
 - B2a) The judge resets the timer(s) as in [Regulation A3b](#) and indicates that they are ready for the competitor to start the attempt (e.g. placing the puzzle cover in front of the competitor, saying "READY", giving a thumbs-up signal). The competitor must start the attempt within one minute, else the competitor forfeits the attempt (DNS), at the discretion of the judge.
 - B2b) When using the Stackmat timer, the competitor uses their fingers to touch the elevated sensor surfaces of the timer. The competitor's palms must be facing down, and located on the side of the timer that is closer to them. Penalty: time penalty (+2 seconds).
 - B2c) When using the Stackmat timer, the competitor must have no physical contact with the puzzle or the puzzle cover while starting the attempt. Penalty: time penalty (+2 seconds).
 - B2d) When using the Stackmat timer, the competitor should keep their hands on the timer until they see a green timer light. The timer is started when they remove their hand(s) from the timer. The competitor starts the attempt and the solve by starting the timer.
 - B2d+) [\[ADDITION\]](#) By default, the competitor starts the solve the first time that they start the timer after the judge has indicated that they are ready (see [Regulation B2a](#)). If they want to check that the timer is in working order, they must (ask and) receive confirmation from the judge each time before starting/resetting the timer during this phase. Penalty for starting and resetting a timer without confirmation from the judge: disqualification of the attempt (DNF).
 - * B2d1) The competitor removes the cover from the puzzle after starting the timer.
 - * B2d2) If a stopwatch is in use in addition to the Stackmat timer, the judge starts the stopwatch as soon as the competitor starts the solve.
 - B2f) When using a stopwatch as the only timer, the competitor confirms they are ready and starts the solve by lifting the cover. The judge starts the stopwatch as soon as the competitor starts the solve.
 - B2f+) [\[CLARIFICATION\]](#) Since the competitor starts the solve by lifting the cover, penalties for starting the timer and for touching the cover while starting the attempt do not apply (see [Regulation B2b](#) and [Regulation B2c](#)).
- B3) Memorization phase:
 - B3a) The competitor may pick up the puzzle during the memorization phase.
 - B3b) The competitor must not make physical notes. Penalty: disqualification of the attempt (DNF).
 - B3c) The competitor must not apply moves or intentional changes in alignment (see [Regulation A3c2](#)) to the puzzle during the memorization phase. Penalty: disqualification of the attempt (DNF).
 - B3d) If the parts of the puzzle are not fully aligned, then the competitor may align the faces, as long as misalignments stay within the limits of [Regulation 10f](#) (see [Regulation A3c2](#)).
- B4) Blindfolded phase:
 - B4a) The competitor dons the blindfold to start the blindfolded phase.
 - * B4a1) Until the competitor applies the first move to the puzzle, they may remove the blindfold to return to the memorization phase.
 - B4b) The competitor must not apply moves or intentional changes in alignment to the puzzle before they have fully donned the blindfold. Penalty: disqualification of the attempt (DNF).
 - B4c) As soon as the competitor applies the first move to the puzzle, the judge must ensure that there is a sight blocker (e.g. a sheet of paper or cardboard) between the competitor's face and the puzzle.
 - B4c++) [\[ADDITION\]](#) If the judge forgot to put a sight blocker and the WCA Delegate does not suspect that the competitor intentionally violated any WCA Regulations, the original attempt may stand.
 - * B4c1) In all cases, the competitor must wear the blindfold such that their view of the puzzle would still clearly be blocked if the sight blocker were not in the way.
 - * B4c2) A sight blocker must be positioned such that the competitor's view of the puzzle would still clearly be blocked if they were not wearing a blindfold.

- * B4c3) If the judge and competitor agree beforehand, or if required by the organization team, a suitable object (e.g. a music stand, the surface of the table) placed by the competitor may be used as the sight blocker. The competitor must make a reasonable attempt to place the sight blocker themselves. Penalty: disqualification of the attempt (DNF). If the sight blocker is not positioned such that the competitor's view of the puzzle would still clearly be blocked if they were not wearing a blindfold, an extra sight blocker should be placed by the judge.
- B4d) The competitor must not look at the puzzle at any point during the blindfolded phase. Penalty: disqualification of the attempt (DNF).
- B4d+) **[CLARIFICATION]** For 3x3x3 Blindfolded, competitors are permitted to determine the location of a permitted logo (see [Regulation 3l](#)) by touch during the blindfolded phase.
- B5) Stopping the solve:
 - B5a) When using the Stackmat timer, the competitor stops the solve by releasing the puzzle and then stopping the timer.
 - * B5a1) If a stopwatch is in use in addition to the Stackmat timer, the judge stops the stopwatch as soon as the competitor stops the solve.
 - B5b) When using a stopwatch as the only timer, the competitor stops the solve by releasing the puzzle and notifying the judge that they have stopped the solve. The judge stops the stopwatch as soon as the competitor does this.
 - * B5b1) The competitor's default notification signal consists of releasing the puzzle(s) from their hands and placing their hands on the surface, with palms down. The competitor and the judge may agree on another appropriate notification before the start of the attempt.
 - B5c) If the competitor is not touching the puzzle, they may remove the blindfold before they stop the timer. They must not touch the puzzle until the end of the solve. Penalty for touching the puzzle: disqualification of the attempt (DNF).

Article C: One-Handed Solving

- C1) Standard speed solving procedures are followed, as described in [Article A](#) (Speed Solving). Additional regulations that supersede the corresponding procedures in [Article A](#) are described below.
 - C1b) During the solve, the competitor must use only one hand to operate the puzzle. Penalty: disqualification of the attempt (DNF).
 - C1b+) **[CLARIFICATION]** The competitor may use both hands during inspection.
 - C1b++) **[CLARIFICATION]** The competitor is not required to use the same solving hand for different attempts of the same round.
 - * C1b2) If a puzzle defect occurs, and the competitor chooses to repair it, they must repair it using only the solving hand. Penalty: disqualification of the attempt (DNF).
 - * C1b3) If other body parts of the competitor come in contact with the puzzle or parts of the puzzle without the competitor's intention and without applying moves, this is not considered operating the puzzle, at the discretion of the judge.
 - * C1b4) During the solve, the competitor may hold the puzzle against the surface to help operate the puzzle (see [Regulation 7f1d](#)).
 - C1c) During the solve, once a competitor operates the puzzle with one hand, they must not operate the puzzle with the other hand. Penalty: disqualification of the attempt (DNF).

Article E: Fewest Moves Solving

- E2) Procedure for 3x3x3 Fewest Moves:
 - E2a) The judge distributes a scramble sequence and paper to all competitors. The judge then starts the stopwatch and calls "GO".
 - * E2a1) Before the attempt has begun, the competitor must not write on any paper intended for the attempt. Exception: the competitor may write information to identify the attempt (see [Regulation E2c1](#)). If they write this information on the paper that contains the scramble sequence, they must write only on the side without the scramble sequence before the attempt. Penalty for writing anything other than information to identify the attempt: disqualification of the attempt (DNF).
 - * E2a1+) **[RECOMMENDATION]** If a judge finds a submitted solution that does not appear to have information to identify the attempt, they should check both sides of the paper.
 - E2b) All competitors have a total time limit of 60 minutes to find and write a solution.
 - E2b+) **[CLARIFICATION]** A competitor may choose to stop an attempt early by handing in a solution before the time limit.

- * E2b1) The judge should call "5 MINUTES REMAINING" at 55 minutes, and must call "STOP" at 60 minutes.
- * E2b2) If a competitor joins an attempt that is already in progress (see [Regulation E6](#)), their time limit is the time remaining (i.e. they must finish when other competitors reach their 60 minute time limit).
- E2c) At 60 minutes, each competitor must submit to the judge a single piece of paper with a written solution and information to identify the attempt. The competitor's solution is considered correct if starting with a solved puzzle and applying the scramble sequence followed by the solution results in a solved puzzle. Penalty for an incorrect solution: disqualification of the attempt (DNF).
- E2c+) **[CLARIFICATION]** Although the judge may provide a standard sheet for competitors to submit solutions, a competitor may submit a solution on a different piece of paper. (Note that the piece of paper must come from the judge, according to [Regulation E3a](#).)
 - * E2c1) Information to identify the attempt is: the competitor's name, WCA ID, or competition registrant ID (at least one, optionally multiple), and optionally the competition name, round, or attempt number. Penalty for a submitted solution without information to identify the attempt: disqualification of the attempt (DNF). Information to identify the attempt may be added by the competitor after the attempt has been submitted but before the end of the competition, at the discretion of the WCA Delegate and under the direct supervision of a judge. The competitor must not write anything after the time limit without the judge's supervision and must not make any changes to the solution. Penalty: disqualification of the attempt (DNF).
 - * E2c1+++ **[EXPLANATION]** The competitor is not required to write the competition name, round, and/or attempt number on their submitted paper, but may wish to do so in order to help the organization team keep track of submitted solutions.
 - * E2c2) The solution must be an unambiguous sequence of moves with each move written out in sequential order. Penalty for an ambiguous solution: disqualification of the attempt (DNF).
 - * E2c2+) **[EXAMPLE]** Examples that are not considered a single unambiguous move sequence: multiple solution sequences without exactly one clearly indicated solution, a solution with ambiguous symbols (e.g. a letter that looks similar to "B" and "R" but is not clearly one or the other), a solution with stars or arrows indicating moves to be performed out of written order (e.g. "insertions" that are not written in-line with the rest of the move sequence, "pre-moves" that are not incorporated into the move sequence using valid notation), a move sequence that is not written out roughly as a series of lines in reading order, any arrangement of symbols that cannot be interpreted as an unambiguous move sequence. Exceptions to the examples above: small typographic corrections (e.g. blacking out moves and writing moves above that are clearly meant to replace them, moves written in subscript or superscript to fit between other moves).
 - * E2c2++) **[REMINDER]** In the past, bracket notations (e.g. [r] or [u2]) were permitted for Fewest Moves. Only rotations based on x, y, or z are permitted now (see [Regulation 12a4a](#)).
 - * E2c3) The competitor should make it clear which moves are intended to be part of their solution, by clearly blacking out/scribbling out any moves to exclude, or by drawing a single outline around their solution.
 - * E2c3+) **[CLARIFICATION]** If a move is not clearly blacked out/scribbled out and it is not clear whether the move is part of the solution, the judge should consider it an ambiguous move sequence (see [Regulation E2c2](#) and [Regulation E2c2+](#)).
 - * E2c4) Only numbers, letters, and apostrophes are considered as part of a competitor's solution. Other symbols are disregarded. The remaining solution must only use moves that are exactly defined as notation for the 3x3x3 Cube in [Regulation 12a](#). Penalty: disqualification of the attempt (DNF).
 - * E2c4+) **[EXAMPLE]** Examples of interpreting symbols or combinations of symbols that are not defined in [Regulation 12a](#): [x] should be interpreted as x. (R * U', * = F2) should be interpreted as R U' F2. (R U)' should be interpreted as R U'. R++ should be interpreted as R. R3' is not permitted.
 - * E2c4++) **[ADDITION]** Moves with both an apostrophe and a 2 should be interpreted as if there were no apostrophe (e.g. R2' should be interpreted as R2).
 - * E2c6) If a competitor used incorrect capitalization for a move defined in [Regulation 12a](#), it should be interpreted as if it has the correct capitalization and accepted as valid notation.
 - * E2c6+) **[EXAMPLE]** Y should be interpreted as y. UW, uw, and uW should be interpreted as Uw. r should be interpreted as R, not Rw.
 - * E2c7) Any writing or other markings on the solution sheet which are clearly not a part of the competitor's intended solution may be disregarded, at the discretion of the judge.
 - * E2c8) Competitors must not intentionally make their solution harder to judge by using moves or symbols not defined as notation for the 3x3x3 Cube, incorrect capitalization, or by any other means. Penalty: disqualification of the attempt (DNF) at the discretion of the WCA Delegate.
- E2d) The competitor's result is the number of moves in their solution, calculated using Outer Block Turn Metric (see [Regulation 12a5](#)).
 - * E2d1) The competitor's solution must not exceed 80 moves (including rotations) when calculated using Execution Turn Metric (see [Regulation 12a6](#)). Penalty: disqualification of the attempt (DNF).

- E2e) The competitor's solution must not be directly derived from any part of the scramble sequence. Penalty: disqualification of the attempt (DNF), at the discretion of the WCA Delegate.
- E2e+) **[CLARIFICATION]** Competitors must not derive solutions from any part of the scramble sequence, and solutions should not share significant parts with the inverse scramble sequence.
- E2e++) **[EXAMPLE]** Example of solutions that should result in a disqualification of the attempt (DNF): solutions beginning with the same 4 or more moves as the inverse scramble sequence.
 - * E2e1) The WCA Delegate may ask the competitor to explain the purpose of each move in their solution, irrespective of the scramble sequence. If the competitor cannot give a valid explanation, the attempt is disqualified (DNF).
- E3) The competitor may use the following objects during the attempt. Penalty for using unauthorized objects: disqualification of the attempt (DNF).
 - E3a) Paper (supplied by the judge), the solution sheet (supplied by the judge), a picture of the scramble for that attempt (which may be included on the paper or solution sheet), and pens/pencils or similar (supplied by the judge, or optionally self-supplied).
 - E3b) 3x3x3 Cubes (at most 3, self-supplied), which must be as described in [Article 3](#) before starting the attempt.
 - E3b+) **[CLARIFICATION]** Puzzles do not need to be solved at the start of the attempt.
 - E3c) Stickers (self-supplied).
 - E3d) Stopwatch or watch (self-supplied) for keeping track of the elapsed time, if it is approved by the WCA Delegate.
 - E3d+) **[CLARIFICATION]** Any stopwatch or watch used by a competitor must not have any functions that would help the competitor find a solution.
 - E3d++) **[CLARIFICATION]** Competitors should not consider a personal stopwatch or watch as the official time, and must submit their solution when the judge calls "STOP".
 - E3e) Other non-electronic aids that do not give an unfair advantage, at the discretion of the WCA Delegate (see [Regulation 2i1](#)).
 - E3f) Tools to remove markings (self-supplied), such as correction fluid, correction tape, or erasers.
- E4) The WCA Delegate may choose to publish the solutions (e.g. photo of the score sheets or transcriptions of solutions).
- E5) The competitor must not communicate with anyone other than the WCA Delegate or the judge. This communication should be about the WCA Regulations and the competitor must not receive assistance deriving their solution. Penalty: disqualification of the attempt (DNF).
- E6) A competitor may join a 3x3x3 Fewest Moves attempt that is already in progress, at the discretion of the WCA Delegate. Exception: a competitor must not be permitted to join an ongoing attempt in the following cases:
 - E6a) A competitor has finished their attempt already (see [Regulation E2b+](#)).
 - E6b) The attempt takes place in a competition with multiple physical locations (i.e. "3x3x3 Fewest Moves simultaneous competitions").
 - E6c) There is any risk that information about the scramble may have become known to the competitor who wishes to join.

Article H: Multi-Blind Solving

- H1) Standard blindfolded solving procedures are followed, as described in [Article B](#) (Blindfolded Solving). Additional regulations that supersede the corresponding procedures in [Article B](#) are described below.
- H1+) **[ADDITION]** If a puzzle with a duplicate scramble is found during an attempt, the puzzle may be re-scrambled using a different scramble sequence, at the discretion of the WCA Delegate.
 - H1a) Before an attempt, the competitor must submit to the organization team the number of puzzles (at least 2) they wish to attempt.
 - * H1a1) A competitor is not permitted to change the number of puzzles after submitting their number to the organization team.
 - * H1a2) A competitor may request to keep their submission private until all competitors have submitted their numbers. Once all competitors have reported their numbers, the information becomes public (e.g. a competitor may ask for the numbers of any other competitors before starting their attempt).
 - * H1a3) Before the attempt, the scrambled puzzles must be placed on the table in an arbitrary orientation while ensuring they remain completely covered. The puzzles should be arranged in a shape as square as possible and should not be stacked (e.g. 8 puzzles should be arranged in 2 rows with 3 puzzles and 1 row with 2 puzzles and in 1 layer only).
 - H1b) If a competitor is attempting fewer than 6 puzzles, they are allotted a time limit of 10 minutes times the number of puzzles in the attempt, else the time limit is 60 minutes.

- H1b+) **[ADDITION]** A competitor may join a Multi-Blind attempt that is already in progress, at the discretion of the WCA Delegate. In this case, their time limit is the time remaining (i.e. they must finish when other competitors reach their time limit). Exception: a competitor must not be permitted to join a Multi-Blind attempt if any competitor has finished their attempt already, or if there is any other risk that information about the scramble may have become known to the competitor who wishes to join.
 - * H1b1) The competitor may signal the end of the solve at any time. If and when the time limit is reached, the judge stops the attempt and the attempt is then scored; the time limit for the attempt counts as the original recorded time.
 - * H1b1+) **[REMINDER]** The attempt is not disqualified for reaching the time limit, due to exceptions for 3x3x3 Multi-Blind (see [Regulation A1a4](#) and [Regulation A1a5](#)).
 - * H1b1++) **[ADDITION]** The judge may permit the competitor to continue the attempt unofficially, but the attempt must be stopped and judged first, in full accordance with the Regulations.
- H1d) Time penalties for the puzzles of the attempt are cumulative.
- H1d+) **[EXAMPLE]** Example: Suppose a competitor attempts 10 cubes, stops the solve with a time of 59:57, and has two time penalties. The time of the final result is $59:57 + 2 \times 2 = 60:01$ (also see [Regulation A1a5](#)).
- H1d++) **[EXAMPLE]** Example: Suppose a competitor attempts 10 cubes, the judge stops the competitor at 60 minutes, and the attempt has two time penalties. The time of the final result is $60:00 + 2 \times 2 = 60:04$.
- H1e) The competitor must not apply any moves to one or more puzzles during the memorization phase. Penalty: disqualification of the attempt (DNF). Exception: these individual puzzles may be considered unsolved at the end of the attempt instead of disqualifying the entire attempt, at the discretion of the WCA Delegate.
- H2) The competitor may self supply a flat covering (e.g. a mat or a cloth) for the surface, at the discretion of the WCA Delegate. If the competitor wishes to do so, the request must be made at the same time as submitting the number of puzzles (see [Regulation H1a](#)).