2022 Regional Judge Exam

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Introduction

Welcome to the 2022 Regional Judge Exam. The purpose of the exam is to ensure that you are familiar with Aresti and the Rule Book.

The process for becoming a judge is documented in the IAC Policy and Procedure manual, Section 214.

We hope that the Introduction to IAC and the Aresti Language and the Practical Aerobatic Judging courses, along with home study of the IAC Official Contest Rules, has well prepared you to post a high score here. The exam is open book and has no time limit. Each question comes with one or more hints that direct you to the relevant part(s) of the Rule Book.

Pay close attention to the wording of the questions. In some cases, you'll be asked to identify the answer that is **INCORRECT**. Other questions ask about what a judge **MUST** do (meaning they have no discretion) or what a **MINIMUM** downgrade should be (i.e., where the Rule Book mentions a penalty of "*at least...*").

Once you've completed this test on paper, please visit the online exam page and enter your answers there (member login required).

Good luck, thank you for investing time in the judging program, and we look forward to seeing you on the Judges Line!

Questions

1. New applicants for Regional Judge:

(Hint: IAC Policy and Procedure #214, part 214.4)

Choose one

- Must complete the Regional Judge Exam within same calendar year as the most recent Judges School that they attended
- May request a National Judge to select another Judge to jointly administer an oral/written exam prior to receiving a passing grade on the Regional Judge Exam
- Must have received credit for completing the IAC "Practical Aerobatic Judging" training within the current or previous contest year prior to application
- Must have performed the duties of Assistant to a grading judge for no less than 40 flights within the current or previous contest year prior to application, unless they have previously flown in IAC competition

2. An Aresti Basic Figure is defined as:

Choose one

- Any maneuver that's suitable for the Primary and Sportsman categories
- Any figure in Families 1 through 8
- Any figure that has no added rolls
- Any figure that does not involve negative G's

3. Aresti Complementary Figures are:

Choose one

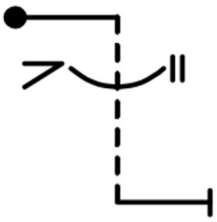
- Found in Family 9
- Rotational elements such as aileron rolls, snaps, and spins
- Mandatory for certain Basic Figures
- All of the above

4. A half-arc symbol on a Basic Figure, such as the 45° line below, indicates that:

Choose one

- You may place any roll, or roll combination, at that location
- You **must** add a roll, or roll combination, at that location
- Any roll, or roll combination, **must** result in a 180° change of attitude
- Both B and C

5. The roll symbols on the catalog drawing below indicate that:



Choose one

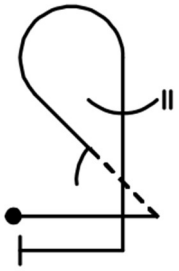
- Rolls are optional on the vertical down line
- Any type of roll, or roll combination, may be placed on the vertical down line
- Any roll, or roll combination, must be a multiple of 90°
- All of the above

6. On a sequence form, rolls on vertical lines never affect the way a Basic Figure is drawn.

Choose one

- True
- False

7. In the figure below, the sharp corners indicate:



Choose one

- A change of attitude that is less than 180°
- The pilot should pull maximum G at those points
- A constant radius when transitioning from one straight line to the next
- Both A and C

8. When constructing a roll combination:

Choose one

- If the unlinked rolls are of the same type (i.e., two aileron rolls or two snap rolls) they may be in the same or opposite directions
- If the tips of the symbols are drawn in opposite directions, the pilot may fly the first roll in either direction as long as the second roll is flown in the opposite direction
- The maximum rotation for any roll **combination** is 1440° (i.e., 4 x 360°)
- Both B and C

9. Heading is the compass direction in which the airplane is pointed and in competition is judged:

Hint: Rule 27.5.2

Choose one

- Always directed into the wind
- Parallel to either the X or Y axis
- Relative to the wind shown on forms B or C, of the first figure which begins or ends parallel to the X axis
- All of the above

10. Flight path is defined as:

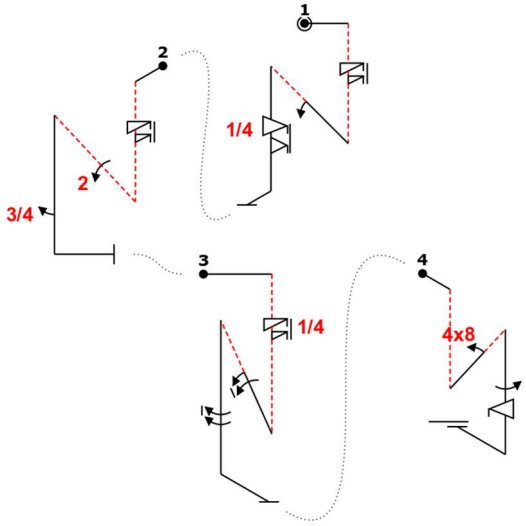
(Hint: Rule 27.1.1)

Choose one

- The attitude of the aircraft relative to the horizon
- The trajectory of the airplane's center of gravity
- Compared with the true horizon for horizontal flight
- Both B and C

11. In the sequence below, which **Basic Figure** is different from the others?

(Hint: Aresti Catalog, Family 1.3)



Choose one

- Figure 1
- Figure 2
- Figure 3
- Figure 4

12. Which of the following is **INCORRECT**?

(Hint: Rule 31.6.2)

Choose one

- Any member of the Contest Jury can disqualify a competitor
- Entering a “hot box” is grounds for disqualification
- Operating an aircraft in a manner that casts an image of recklessness on the IAC is grounds for disqualification
- Failure to respond to a recall signal is grounds for disqualification

13. All volunteers are authorized to bring guests to the judging line.

(Hint: Rule 11.2.1)

Choose one

- True
- False

14. While serving as a grading judge, you realize that your assistant's spouse is about to enter the box. As a result, your assistant must recuse themselves for the duration of their spouse's flight.

(Hint: Rule 11.3.3)

Choose one

- True
- False

15. You hear the Chief Judge clear the next Unlimited competitor into the box. Figure 1 of the competitor's sequence is a humpty-bump. Without Signaling (aka "wing-wags"), the competitor dives into the box and flies a Cuban-8. You should:

(Hint: Rule 14.3.4, 14.3.2)

Choose one

- Award a 0.0 score to Figure 1 and tell your recorder to write "Wrong Figure" in the Remarks column
- Award a HZ to Figure 1 and tell your recorder to write "Wrong Figure" in the Remarks column
- Tell your recorder to write a grade the Cuban-8 in the margin in case the figure turns out to be legitimate
- Ignore the Cuban-8

16. Grading Judges assign penalties for Explicit and Implicit Interruptions.

(Hints: 15.1.2, 15.2.2)

Choose one

- True
- False

17. A competitor is flying a sequence with 15 figures. After successfully completing Figures 1 through 9, the competitor takes an Explicit Interruption. After signaling a restart, they repeat Figures 8 and 9, and then finish the sequence as drawn. You should:

(Hint: Rules 15.1.5, 26.3.1(b), 26.5.2)

Choose one

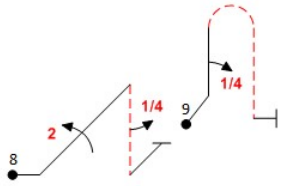
- Ignore the repeated Figures 8 and 9, and resume scoring on Figure 10
- Award a HZ to Figure 8 with the notation "*added figure*", ignore the repeated Figure 9, and resume scoring on Figure 10
- Award a HZ to Figure 9 with the notation "*added figure*" and resume scoring on Figure 10
- Award a HZ to Figure 10 with the notation "*added figure*"

18. Which of the following does **NOT** meet the definition of an “implicit” program interruption?

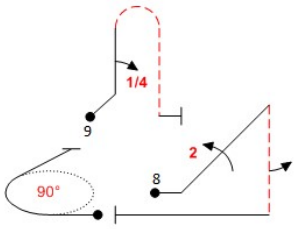
Choose one

- Omitting a figure
- Adding a half slow roll to correct an improper attitude (upright to inverted or vice versa) between figures
- Correcting a heading deviation of 90º or more between figures
- Flying a horizontal portion of a figure such that the obvious intent is to gain or lose altitude

19. The competitor is to fly the sequence of figures below.



You observe the competitor the following maneuvers instead:



You should:

(Hints: 15.2.1(a), 26.3.1(b), 26.5.1)

Choose one

- Award a 0.0 for Figure 8 and a 0.0 for Figure 9 because the 90° turn is an added figure
- Award a HZ for Figure 8, ignore the turn, and grade Figure 9
- Award a HZ for Figure 8 and a 0.0 for Figure 9 because the 90° turn is an inserted figure
- Award a HZ for Figure 8 and a HZ for Figure 9 because the 90° turn is an inserted figure

20. Just before a competitor begins a Free Program Performance, you notice that their Forms B and C are not consistent with each another. What do you use to evaluate the figures?

(Hint: Rule 21.4)

Choose one

- The figures as they are drawn on Form A
- The Aresti Aerobatic Catalog Number as it appears on Form A
- The figures as they are drawn on the form that is appropriate for the official wind (B or C form)
- Mark any inconsistent figure(s) as "A" for Average and notify the Chief Judge after the flight.

21. While grading competitors, you must:

(Hint: 26.1.1)

Choose one

- Ignore purely stylistic differences such as slow graceful flying vs fast-paced
- Do your best to avoid any preconceptions about the competitor or their aircraft
- Avoid the temptation to adjust your scores based on the difficulty of the figures
- All of the above

22. Judges must **NOT** await until the end of a figure to deduct for any imperfections.

(Hint: Rule 26.1.4)

Choose one

- True
- False

23. Grading Judges may **NOT** use any scoring criteria other than those specified in the Rule Book.

(Hint: 26.1.9)

Choose one

- True
- False

24. Absent any other problems, Grading Judges must award a score of 0.0 for a figure that has 10 or more points of cumulative downgrades.

Choose one

- True
- False

25. A competitor flies a figure with several major errors in heading and flight path, and you award a score of 0.0. Which of the following would be a valid entry in the Remarks column?

(Hint: 26.2.2)

Choose one

- By definition, a score of 0.0 means at least ten points of deductions, so there's no need to write anything in the Remarks column
- "*Yuck, that was terrible*"
- "*Bummer, dude*"
- "*Many angular errors*"

26. While grading a complex figure, you tally ten points of deductions and then the competitor finishes the figure in the wrong direction. You should:

(Hint: Rule 26.2.3)

Choose one

- Award a score of 0.0
- Award a score of HZ
- Ask the Chief Judge to call a Conference
- Tell you Recorder to write "A for Average"

27. A competitor is supposed to fly this double snap roll:

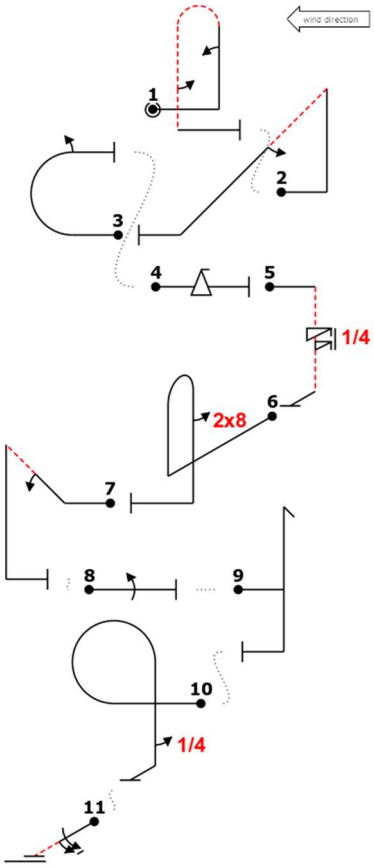
but instead of rotating 720°, the aircraft rotates 780° (i.e., 60° too far) . Assuming the figure has no other faults, you should:

(Hint: 26.1.5, 26.3.1(c))

Choose one

- Award a -2.0 (60° error x 1 point per 5 degrees = 12 points, deducted from every figure's starting score of 10.0)
- Award a 0.0
- Award a HZ
- B or C; both are valid

28. The competitor flies the following sequence as drawn until exiting figure 6 going upwind. The competitor proceeds to fly the rest of the sequence with no Interruptions.



The judges must:

(Hint: 26.8.1, 26.8.3)

Choose one

- Hard Zero (HZ) figure 6
- Hard Zero (HZ) figures 6, 7, 8, 9, and 10
- Hard Zero (HZ) figures 6 through 11
- Grade all the figures since turns from the Y axis are non-directional

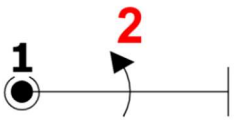
29. Under what circumstances would you award a mark of 'A' for Average?

(Hint: 26.4.1)

Choose one

- Your assistant calls the wrong figure by mistake, causing confusion about what the competitor is doing
- The competitor executes a hammerhead pivot behind a cloud
- You miss the beginning of Figure 1 because no one yelled "heads up!"
- All of the above

30. As you watch a two-point hesitation roll, you're unsure if the roll stopped completely when the aircraft was inverted.



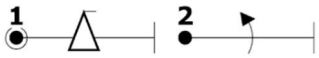
You should:

(Hints: 26.5.1, 28.21.5)

Choose one

- Award a HZ because the pause was not long enough for you to be certain
- Give the pilot the benefit of the doubt, and therefore no deduction
- Award an 'A' for average
- B or C

31. A competitor flies these two figures:



You see the snap roll stop 10° too soon. Then the pilot draws a horizontal line, corrects the bank angle, draws another horizontal line, and performs the slow roll.

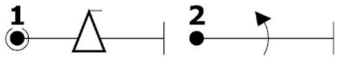
Assuming no other errors, you should deduct two points for the over-rotation and two points for the correction.

(Hint: 26.6.1)

Choose one

- True
- False

32. A competitor flies these two figures:



You see the snap roll stop 10° too soon. Then the pilot draws a horizontal line and begins the slow roll with the wings still 10° from level.

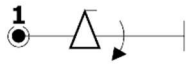
Assuming no other errors, you should deduct two points from the snap roll and two points from the slow roll.

(Hints: 26.6.3, 26.6.4)

Choose one

- True
- False

33. As competitor flies this figure:



you see the snap roll stop 10° too soon. Then the pilot performs the slow roll starting with the wings 10° from level.

Assuming no other errors, you should deduct two points for the under-rotated snap roll and two points for not fixing the bank angle before starting the slow roll.

(Hint: 26.6.2)

Choose one

- True
- False

34. A competitor is supposed to fly a loop followed by a hammerhead. However, after 360° of pitch change -- i.e., the entire loop -- the aircraft continues to pitch up directly into the hammerhead.

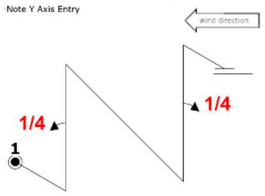
Assuming no other errors, you should:

(Hint: 26.7.1)

Choose one

- Deduct two points from the loop
- Deduct one point from the loop and one point from the hammerhead
- Award a HZ for the loop
- Award a HZ for the loop and the hammerhead

35. The 45° line in the following figure **MUST** be flown into the wind:

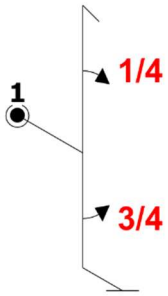


(Hint: 26.8.2)

Choose one

- True
- False

36. When performing the following maneuver the competitor **MUST**:



(Hints: 26.8.2, 26.8.3)

Choose one

- Pivot the aircraft into the wind at the top of the maneuver
- Pivot the aircraft downwind at the top of the maneuver
- Fly the 1/4 and 3/4 rolls in opposite directions
- Fly the 1/4 and 3/4 rolls in the same direction

37. The Zero-Lift Axis is:

(Hints: 27.2, 27.3, 27.4)

Choose one

- The same as the longitudinal axis on some, but not all, aerobatic aircraft
- Used as a reference when judging vertical lines
- Used as a reference when judging 45° lines
- All of the above

38. A horizontal line is:

(Hint: Rule 27.5.1)

Choose one

- The flight path of an aircraft when flown on a constant heading
- Flown at a constant altitude
- The line marking the entry and exit of a figure which, in Gliders, may be at any reasonable angle.
- All of the above.

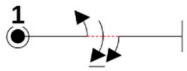
39. Errors in the roll, pitch, and/or yaw axes should be downgraded by:

(Hint: 27.6.1, 27.7.1)

Choose one

- 0.5 points for any noticeable deviation
- 1 point per 5° of deviation
- 10 points for deviations between 50° or more but less than 90°
- All of the above

40. A competitor is flying the following figure:



You notice that the roll rate during the half-roll was considerably slower than the roll rate during the roll-and-a-half. You should downgrade the figure for the difference in the two roll rates.

(Hint: 27.8.1)

Choose one

- True
- False

41. The competitor is flying the following figure:

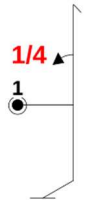
You notice that there no pause between the snap roll and the aileron roll. The correct mark for this figure is HZ.

(Hint: 27.8.2)

Choose one

- True
- False

42. When flying the following figure, the competitor is free to execute the quarter-roll in either direction:

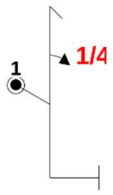


(Hint: 26.8.3)

Choose one

- True
- False

43. When flying the following figure, the competitor is free to execute the quarter-roll in either direction:

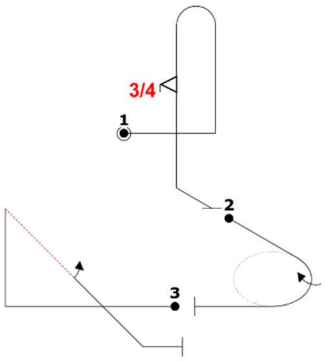


(Hint: 26.8.1)

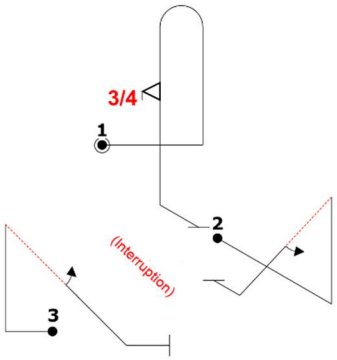
Choose one

- True
- False

44. The competitor was supposed to fly these figures:



But they flew these figures instead:



You should:

(Hints: 26.3.1; 26.5)

Choose one

- Award a HZ for replacing the Figure 2 rolling turn with the Y-axis Shark's Tooth, and award a numerical grade for Figure 3 for the second execution of the Shark's Tooth
- Award a HZ on Figure 2 for skipping the rolling turn, award a HZ on Figure 3 for flying the Shark's Tooth on the wrong axis, ignore the second execution of the Sharks' Tooth, and resume grading on Figure 4 (not shown)
- Award a HZ on Figure 2 for skipping the rolling turn, award a HZ on Figure 3 for flying the Shark's Tooth on the wrong axis, award a HZ on Figure 4 (not shown) for adding the second Shark's Tooth, and resume grading on Figure 5
- Ask the Chief Judge to call a conference to review what happened

45. Observing a competitor pulling to the vertical, you note the pitch attitude (ZLA) reach 95°, but immediately return to 90°. The appropriate downgrade for that error is:

(Hint: 26.6.1)

Choose one

- Not more than 1 point
- 1 point
- 1 point for the over-pitch plus 1 point for the correction
- No downgrade if the aircraft attitude never stabilized at 95 degrees

46. A competitor flies the figure shown below:

You observe the nose pitching towards the aircraft canopy but as the aircraft reaches the inverted flight attitude, continuing to rotate, the aircraft nose appears to have returned to the original flight path and the tail is no longer appearing to rotate off-axis in a corkscrew motion. The aircraft continues this on-axis rotation until it returns to wings level flight. The appropriate score for this figure is:

Hint: 28.22.2; 28.22.7; 26.9.1

Choose one

- 10.0
- 0.0
- 5.0
- HZ

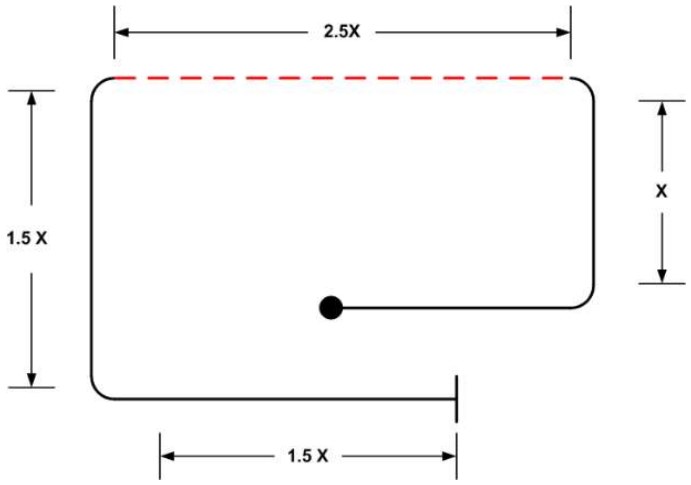
47. A competitor who flies a vertical line like the one below should receive a deduction for "positive upline":

(Hint: 27.2.1, 27.3.1)

Choose one

- True
- False

48. A competitor flies a square loop that looks like this:



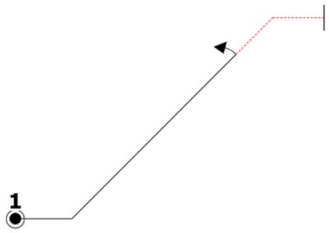
How many points should you deduct for the varying line lengths?

(Hint: Rules 27.9.4, 28.12.2)

Choose one

- 5.5 points
- 5.0 points
- 4.5 points
- 4.0 points

49. A competitor flies a 45° upline with a half-roll. The resulting figure looks like this:



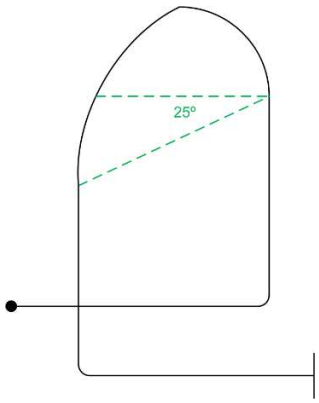
Assuming the line before the roll is 500 feet long and the line after the roll is 150 feet long, you should deduct:

(Hint: 27.9.4)

Choose one

- 1 point
- 2 points
- 3 points
- 4 points

50. A competitor flies a Humpty Bump with a top radius that has a perfect first quarter but the second quarter is "*pinched*" and "*capped low*":



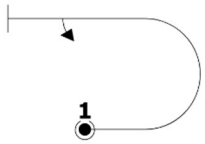
You **MUST** deduct:

(Hint: Rules 27.10.2, 27.10.4)

Choose one

- 1 point
- 2 points
- 5 points
- Any amount, as long as you are consistent

51. Adding a substantial line between the looping portion of an Immelman and the half roll results in a downgrade of:

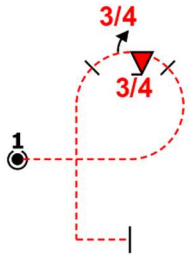


(Hint: 27.11.2)

Choose one

- 2 points
- 1 point
- At least 1 point
- No downgrade

52. A competitor flies the following figure:



You see roll combination begin 15° before the apex of the looping segment and finish 25° past the apex. The pause between the two roll elements is observed to be exactly at the apex of the looping segment. You should award a downgrade of:

(Hint: Rule 27.12.3)

Choose one

- Zero points
- 1 point
- 1.5 points
- 2.0 points

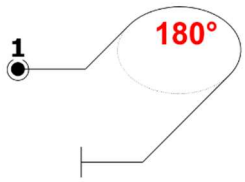
53. A competitor performs a loop on the X-axis while flying directly over the judges' heads. You should:

(Hint: Rule 27.15.1, 29.3.1(c))

Choose one

- Score the figure as best you can
- Score the figure as best you can and make a mental note to deduct from the Presentation score at the end of the flight
- Score the figure as best you can, deduct two points because the figure cannot be properly graded, and make a mental note to deduct from the Presentation score at the end of the flight
- Tell your recorder to mark the figure as "A" for Average

54. At the high point of a wingover, you should deduct 1 point per 5° if:



(Hint: 28.2.2)

Choose one

- The bank angle is not precisely 90°
- The fuselage is not parallel to the horizon
- The aircraft's heading is not exactly 90° from the axis on which the figure started
- All of the above

55. The loop within a Quarter-Clover should be judged using the same criteria as an ordinary full loop (Aresti figure 7.4.1.1).

(Hint: 28.3.1)

Choose one

- True
- False

56. As a competitor performs a 90-degree upright competition turn, you see the aircraft roll 50º without changing heading, then begin to change heading while continuing to roll an additional 20º. After 90º of heading change, you see that the roll back to wings-level was slower than the initial roll. Assuming no other defects, you should deduct:

(Hint: Rules 28.5.2, 28.5.4)

Choose one

- 1 point
- 2 points
- 3 points
- 4 points

57. A competitor flies a 360˚ rolling turn with 4 rolls to the outside, starting from upright. You see the aircraft pass through the upright wings level attitude at 85˚, 190˚, 265˚, and 360˚ of turn. Assuming no other defects, the appropriate downgrade is:

(Hint: Rules 28.6.4, 28.6.5)

Choose one

- 4 points for being off heading at the cardinal points.
- 1.5 to 3 points for the three variations in roll rate.
- No deduction because the figure was finished on heading
- 1 point for every 5˚ that the aircraft was off heading at the cardinal points

58. While watching a hammerhead pivot on a calm wind day, you see the aircraft move laterally by two wingspans. The appropriate deduction is:

(Hint: 28.8.3)

Choose one

- 1 point
- 2 points
- 3 points
- 4 points

59. A competitor completes a Hammerhead to their left with a strong wind from their right. The aircraft does not climb or descend during the pivot, and you see no heading, roll or pitch errors. However, the aircraft drifts approximately two full wingspans downwind during the pivot. Your grade should be:

Hint 28.8.5

Choose one

- 0.0
- 4.0
- 7.0
- 10.0

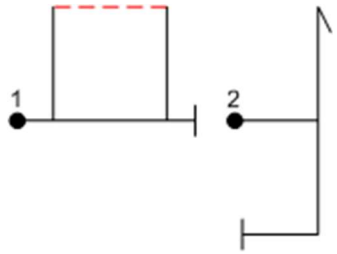
60. Which one of the following statements is **INCORRECT**?

(Hint: Rules 26.8.2, 28.9.2, 28.9.4, 34.20.5.1)

Choose one

- A tailslide drawn with a dashed arc indicates that the aircraft should be inverted halfway through the pivot about the pitch axis
- Any tailslide on the X axis must be flown as drawn with respect to the official wind
- After a tailslide pivot, the aircraft may swing past vertical without penalty
- A glider flying a tailslide is only required to slide by a visible amount

61. The following excerpt from a sequence is being flown by a competitor:



After pulling to the last horizontal line of the square loop, the competitor draws a line half as long as the first vertical line, then begins the hammerhead. Assuming no other faults, the appropriate deduction is:

(Hint: Rules 27.9.4 and 28.12.2)

Choose one

- Grade the square loop as a hard zero (HZ) because it was not completed before the hammerhead was started
- Grade the square loop a hard zero (HZ) because it was not finished before starting the hammerhead and downgrade the hammerhead by one point for no line between figures
- Deduct two points from the square loop for the 1:2 ratio error in the last horizontal line and give the “benefit of the doubt” for completing the square loop, but deduct one (1) additional point from both the square loop and the hammerhead for "no line between"
- Deduct two points from the square loop for the 1:2 ratio error in length of the last horizontal line

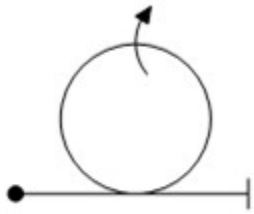
62. Figures in Family 7.8.1-7.8.16 have special criteria for:

(Hint: 28.16.2, 28.16.3, 28.16.4)

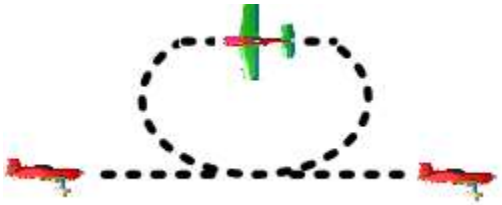
Choose one

- The size of the radii
- The altitudes of the radii
- Line lengths
- All of the above

63. The competitor is flying the figure below.



Their flight path looks like this:



The appropriate deduction for the flat spot is:

(Hint: 27.12.2)

Choose one

- At least 0.5 points
- At least 1.0 point
- At least 2.0 points
- Any of the above, as long as you're consistent

64. While a competitor executes a four-point roll, you see that each of the points is slightly over-rotated and the hesitation between the second and third quarter-rolls is longer than the first hesitation. The **MINIMUM** downgrade for those errors is:

(Hint: Rules 28.21.2, 28.21.3, 28.21.4)

Choose one

- 1 point
- 2 points
- 3 points
- 4 points

65. While watching a snap roll, you see the aircraft yaw 5° and roll 5° before any pitch change. The appropriate deduction is:

(Hint: 28.22.3, 28.22.6)

Choose one

- 0 points
- 1 point
- 2 points
- HZ

66. Which of the following statements about spins is **INCORRECT**?

(Hint: Rules 28.24.2, 28.24.5, 28.24.7, 28.24.8)

Choose one

- Once the spin is established, the aircraft must maintain a constant pitch attitude until the correct amount of rotation is reached
- At the start of the spin, the aircraft must pitch, yaw, and roll simultaneously
- If you perceive the aircraft spiraling throughout the entire maneuver rather than autorotating, you must award a HZ
- At the completion of the spin, the aircraft must pitch to vertical down and align the wings with the horizon

67. Which of the following statements about Presentation marks are **CORRECT**?

(Hint: Rule 29.3)

Choose one

- Judges give a presentation grade according to the total impression of the balanced use of the aerobatic box and over all presentation of the sequence
- The competitor is not required to use all the available airspace vertically or on the X and Y axes
- It is important that Judges apply their Presentation criteria consistently to every pilot
- All of the above

68. In a Glider Intermediate sequence, the pilot flies an exact 45° attitude on a 45° internal line. The appropriate deduction is:

(Hint: Rules 27.4.1, 27.6.1, 34.20.1.1)

Choose one

- None, because gliders can fly straight lines at any "reasonable angle"
- None, because the aircraft's attitude exactly matched the figure as drawn
- Three (3) points for the 15º error
- None of the above

69. A **glider** competitor is to fly the figures below:

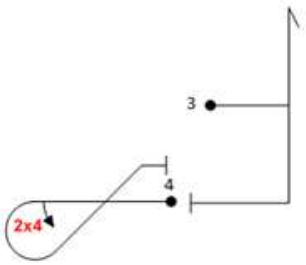


Figure 3 finishes on a line 10° up from horizontal, then the 2x4 roll is executed on the same flight path before transitioning to the looping segment of figure 4. The appropriate downgrade(s) are:

(Hint: 34.20.2.1)

Choose one

- No points
- 2 points on Figure 3
- 2 points on Figure 4
- 2 points on Figure 3 and 2 points on Figure 4

70. You are about to grade a Four Minute Free program. Which of the following is **CORRECT**?

(Hint: Rules 35.11, 35.12, 35.13,

Choose one

- There are ten grading criteria
- All of the grading criteria are subjective
- All grades must be between 0.0 and 10.0 in increments of 0.5
- All of the above