Question 1

The official criteria for becoming an IAC Judge and maintaining judge currency can be found in:

(Hint: Follow the links in the answers below)

Answer
Section 214 of the IAC Policy and Procedure Manual
The current edition of the IAC Contest Rules
Pre-2020 editions of the IAC Contest Rules
Any of the above

Question 2

While grading competitors, you must:

(Hint: Rule 26.1.1)

Answer
Ignore aircraft capabilities, noise, and speed
Avoid any feelings about the competitor
Not assign scores based on the difficulty of the figures
All of the above

Question 3

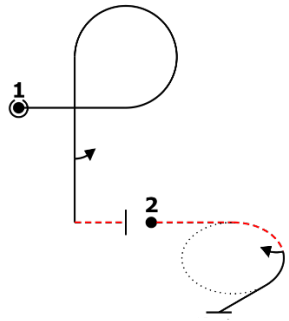
You observe a Power Primary competitor begin a loop from an altitude that is obviously above 3500 feet AGL and close to the judges, making it impossible to properly grade the figure. You should:

(Hints: Rules 13.5.1, 13.6.1, 27.15.1, 29.3.1)

Answer
Make a mental note to deduct from the Presentation score
Ignore the extra altitude because it improves safety
Instruct your Recorder to write "HIGH" in the Remarks column
Deduct two points because it is not possible to properly grade the figure
Answers A, C, and D

Question 4

A competitor is supposed to fly the following figures:



Instead, they perform a ¾ roll on the downline of Figure 1, finishing Figure 1 inverted and 90º off-heading. You see the competitor roll upright and then wing-wag. You should:

(Hint: Rule 15.1.3, 26.3.1)

Answer
Award a HZ to Figure 1 with the notation "*wrong figure*"
Award a HZ to Figures 1 and 2 with the notation "*wrong figure*" for both
Award a HZ to Figure 1 with the notation "*wrong figure*" and award a HZ to Figure 2 with the notation "*added figure*"
Award a HZ to Figure 1 and "A" for Average for Figure 2

Question 5

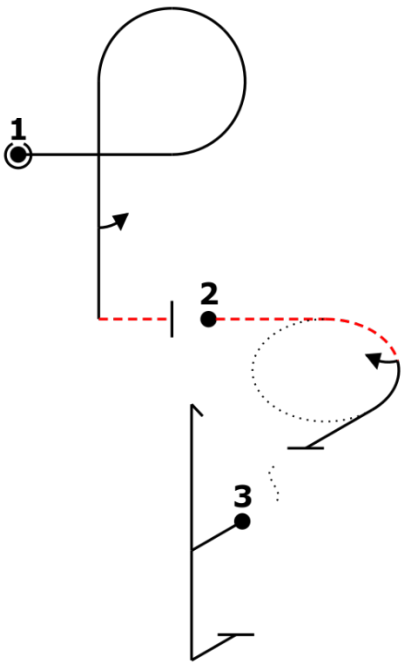
A competitor is flying a sequence with 15 figures. After successfully completing Figures 1 through 9, the competitor takes an Explicit Interruption. After signaling a restart, they repeat Figures 8 and 9, and then finish the sequence as drawn. As a Grading Judge, you should:

(Hint: Rules 15.1.1, 15.1.5, 26.5.2)

Answer
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*"
Ignore the repeated Figures 8 and 9, and resume scoring on Figure 10

Question 6

You are grading a competitor who is supposed to fly the following figures:



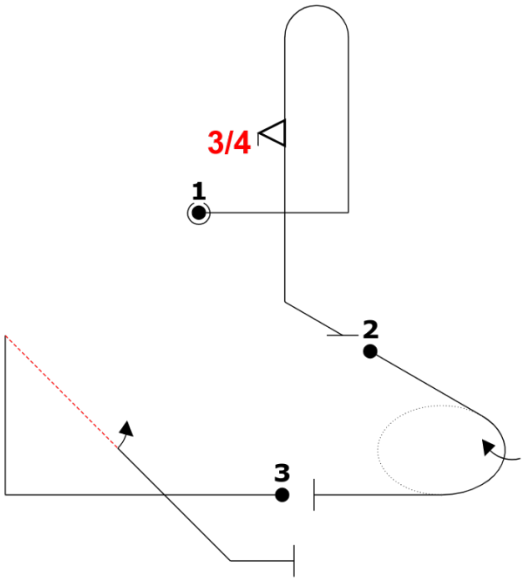
Instead, they perform a ¾ roll on the downline of Figure 1, finishing upright and 90º off-heading. The competitor immediately turns 90º, rolls inverted, and begins Figure 2 in the proper direction. You should:

(Hint: Rules 15.2.1, 15.2.2, 26.5.2)

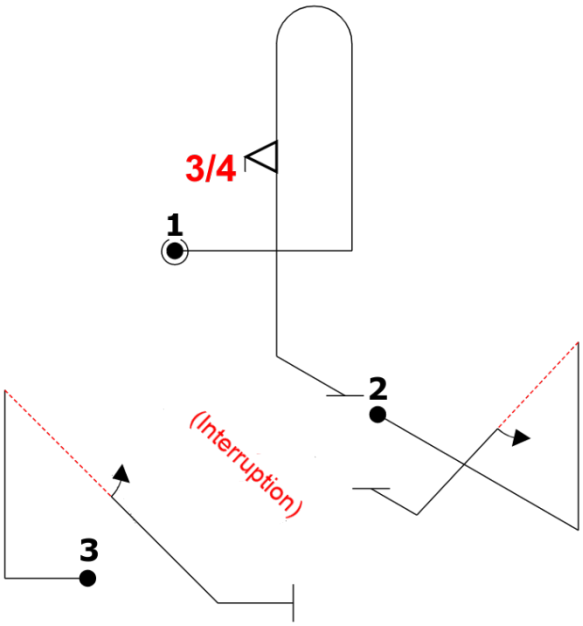
Answer
Award a HZ to Figure 1 with the notation "*wrong figure*"
Award a HZ to Figures 1 and 2 with the notation "*wrong figure*" for both
Award a HZ to Figures 1, 2, and 3 with the notation "*wrong figure*" for all three
Award a HZ to Figures 1, 2, 3, and 4 with the notation "*wrong figure*" for all four

Question 7

The competitor was supposed to fly these figures:



But flew these figures instead:



You should:

(Hint: Rules 26.3.1, 26.5.1, 26.5.2)

Answer
Ask the Chief Judge to call a conference to review what happened
Award a HZ on Figure 2 for omitting 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 Shark's Tooth, and resume grading on Figure 4 (not shown)
Award a HZ on Figure 2 for omitting 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, then resume grading on Figure 5
Award a HZ for replacing the Figure 2 rolling turn with the Y-axis Shark's Tooth, then score Figure 3 as usual

Question 8

Just before a competitor begins a Free Program Performance, you notice that their "B or L" sequence drawings depicts a hammerhead with **½ roll** on the downline while the "C or R" drawing depicts the same Basic Figure with **1½ rolls** on the downline. How should you evaluate that figure?

(Hint: Rule 21.5.2)

Answer
Use the Aresti catalog numbers to determine which roll the competitor should perform
Award a HZ to the figure
Award an 'A' for Average
Use the drawing on the form that corresponds to the official wind direction (B, C, L, or R)

Question 9

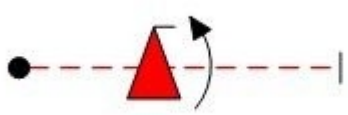
A competitor flies a figure with several major errors in heading and flight path, and you award a score o 0.0 what would be the best entry in the Remarks column?

(Hint: Rule 26.2.2)

Answer
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
"*JBF (Just Bad Flying)*"
"*Wrong figure*"
"*Many angular errors*"

Question 10

Flying the figure shown below, the competitor over-rotates the snap roll by 15º, pauses briefly, then performs the aileron roll in the same direction and finishes the figure wings-level. As a result, the aileron roll only rotates 345º. What is the appropriate deduction?

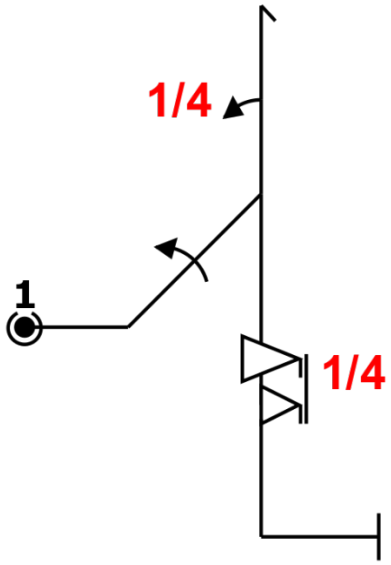


(Hint: 26.6.2, 27.8.2)

Answer
Three points for over-rotating the snap
Four points: three for over-rotating the snap and one for the pause
Six points: three for over-rotating the snap and three for under-rotating the aileron roll
None of the above

Question 11

A competitor flies the following figure:



You observe a slight (i.e. less than 2.5 degrees) under-rotation on the first roll, wings yawed 5° from level after the second roll, and a 10° over-rotation on the third roll. The **MINIMUM** deduction for these faults is:

(Hint: Rule 26.1.4, 27.6.1)

Answer
3 points
3.5 points
4 points
4.5 points

Question 12

A spin is over-rotated by 90º. The correct mark is:

(Hint: Rule 26.3.1)

Answer
0.0

HZ

Question 13

A competitor flies a 45º upline that is 15º too steep with a snap that is over-rotated by 25º. The figure finishes 20º off heading. The correct mark is:

(Hint: Rule 26.1.4, 26.1.5, 26.2.1, 27.6.1)

Answer
0.0

HZ

Question 14

The correct score for a spin that does not autorotate is:

(Hint: Rule 28.24.4)

Answer
0.0

HZ

Question 15

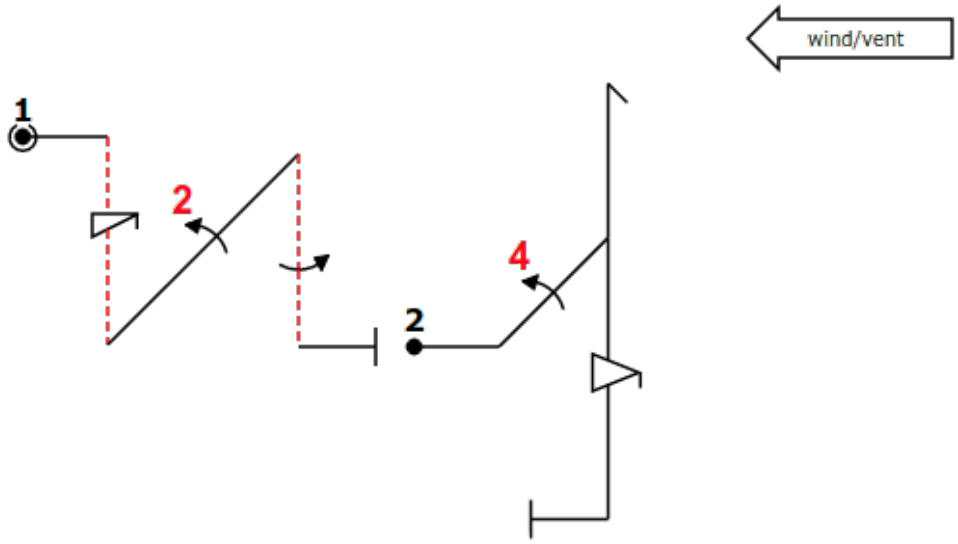
A tailslide in a **Power** aircraft does not slide backwards by at least half of the fuselage length. The correct mark is:

(Hint: 28.9.3)

Answer
0.0
HZ

Question 16

A competitor is flying the following figures:



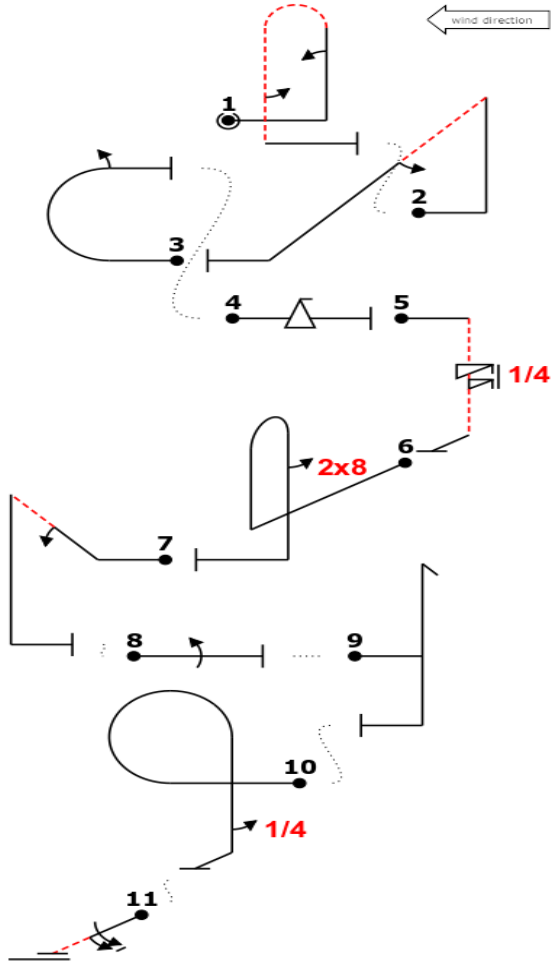
As Figure 1 progresses, you notice that the aircraft is nearing the upwind edge of the box. The competitor pulls directly from the downline of Figure 1 to the 45-degree upline of Figure 2 without drawing a horizontal line. You are forced to look far to the right but can still see Figure 2 clearly and properly grade it. You should:

(Hint: Rules 26.8.1, 27.15.1, 29.3.1)

Answer
Deduct one point from both Figure 1 and Figure 2 for "*no line between*"
Make a mental note to deduct from the Presentation score
Deduct two points from Figure 2 because it is so far out of position
Answers A and B
Answers A, B, and C

Question 17

The competitor flies the following sequence as drawn until figure 6, which finishes going upwind. The competitor continues flying the rest of the figures with no Interruptions.



You **MUST**:

(Hint: Rules 26.3.1(c), 26.9.1, 26.9.3)

Answer
Grade all the figures because turns that change the flight path from the Y axis to the X axis are non-directional
Award a Hard Zero (HZ) for figure 6
Award a Hard Zero (HZ) for figures 6 thru 10 and score figure 11
Award a Hard Zero (HZ) for figures 6 thru 11

Question 18

Flight path is:

(Hint: Rule 27.1.1)

Answer
The attitude of the aircraft relative to the horizon
The movement of the aircraft's center of gravity through the sky
Compared with the horizon for horizontal flight
Answers B and C

Question 19

The Zero Lift Axis is:

(Hint: Rule 27.2.1)

Answer
An imaginary line from the spinner to the elevator
Dependent on whether the aircraft is upright or inverted
A function of the wing's airfoil shape and Angle of Incidence
Answers B and C

Question 20

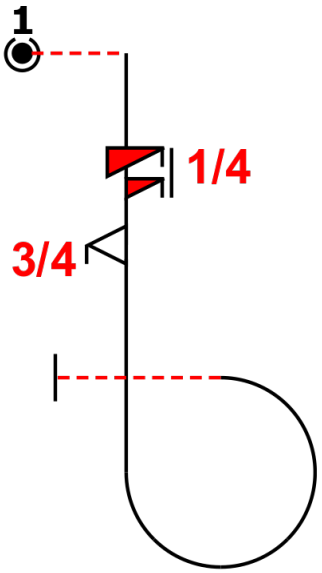
For powered airplanes, all 45º lines are judged

by: (Hint: Rules 27.2, 27.3.1, 27.4)

Answer
The aircraft's flight path relative to the horizon
The airplane’s flight path relative to the vertical attitude
The airplane’s Zero-Lift Axis relative to vertical and should be corrected for the effects of wind
Assessing the aircraft Zero Lift Axis vs. the perfect vertical attitude plus or minus 45 degrees and the effects of wind should be ignored

Question 21

A competitor is expected to fly the following figure:



What **MUST** you look for to decide whether the spin and snap roll are flown in opposite directions as drawn?

(Hint: Rule 27.8.4)

Answer
The yaw direction of the spin is opposite to the yaw direction of the snap roll
The roll direction of the spin is opposite to the roll direction of the snap roll
The yaw direction of the spin is the same as the yaw direction of the snap roll
The roll direction of the spin is the same as the roll direction of the snap roll

Question 22

A competitor flies the figure shown below:

You observe the nose pitching up as the aircraft begins to autorotate. As the aircraft passes through 180° of rotation, you see that it has returned to the original attitude and the tail is no longer rotating off-axis in a corkscrew motion. The aircraft continues this on-axis rotation until it returns to upright, wings level flight. Assuming no other flaws, the appropriate score for this figure is:

(Hint: Rules 26.2.3, 26.3.1, 26.10.1, 27.6.1, 28.22.2, 28.22.7)

Answer
0.0
5.0
10.0
HZ

Question 23

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

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

Answer
At the start of the spin, the aircraft must move simultaneously around all three flight axes
During autorotation, the aircraft must maintain a constant pitch angle and rotation rate until the correct amount of rotation is reached
If you perceive the aircraft spiraling (i.e. no stall/autorotation) you must award a HZ
A vertical downline must be established simultaneous with or shortly after autorotation ceasing

Question 24

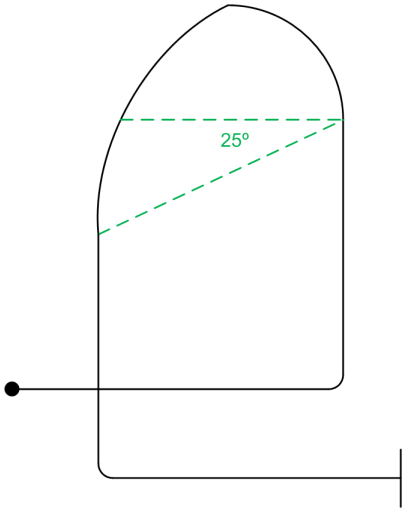
On the upline of a hammerhead, you see the aircraft's wings are 5º off-axis and they remain that way throughout the entire figure. You also see the aircraft slide backwards by less than half of a wingspan, then pivot with no pitch changes, and finish with an exactly vertical downline and the wings still 5 degrees off axis. The appropriate downgrade is:

(Hint: Rules 26.6.2, 27.6.1, 28.8.3)

Answer
1 point for the wings off-axis on the upline
2 points: 1 point for the wings off-axis on the upline plus 1 point for the wings off-axis on the downline
3 points: 1 point for the wings off-axis on the upline, 1 point for the wings off-axis on the downline, and 1 point for sliding backwards before the pivot
HZ for "wrong figure" due to the backwards motion before the pivot

Question 25

A competitor flew a Humpty Bump with a top radius that had a perfect first quarter, but the second quarter was "*pinched*" and "*closed low*":



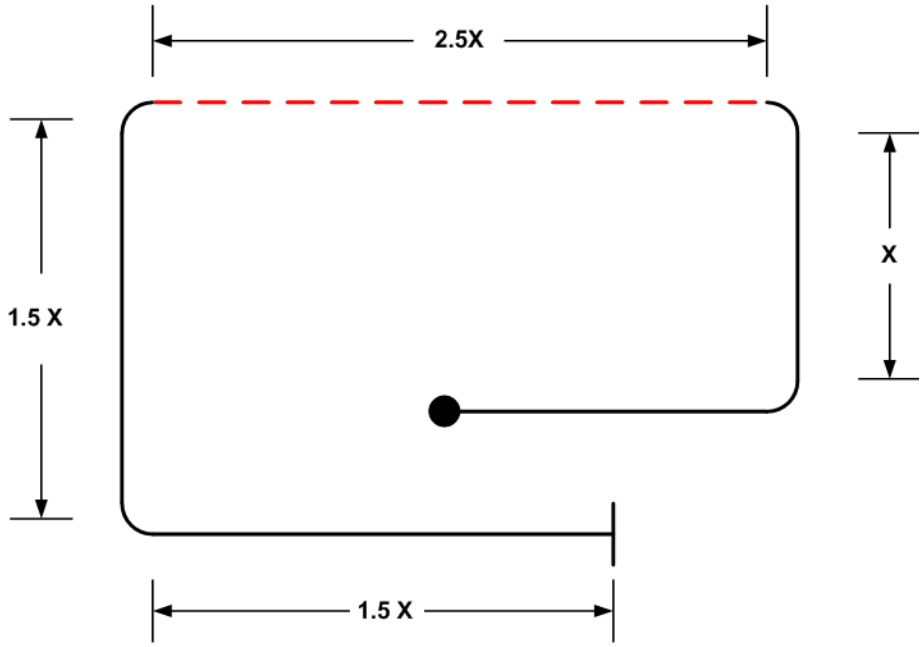
You **MUST** deduct:

(Hint: Rules 27.7.1, 27.10.2, 27.10.4)

Answer
1 point
2.5 points
5 points
An amount that is proportional to the error and consistent with your method for scoring radii

Question 26

A competitor flies a square loop that looks like this:



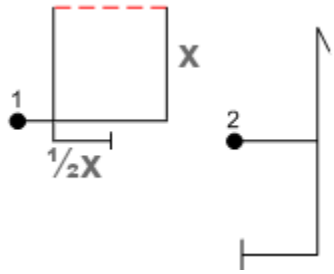
How many points should you deduct for the line length variations?

(Hint: Rules 27.9.4, 27.9.5, 28.12.2)

Answer
1 point
2 points
3 points
4 points

Question 27

A competitor flies these figures:



You see that the square loop's final horizontal line is half as long as the first vertical line and then the hammerhead begins. The appropriate deduction for that fault is:

(Hint: Rules 27.9.4 and 28.12.2)

Answer

HZ because the Square Loop was not completed before the Hammerhead began

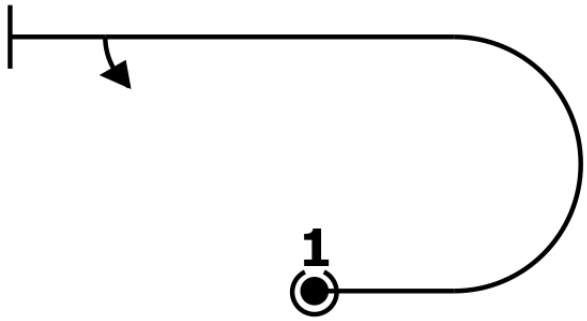
HZ because the Square Loop was not completed before starting the Hammerhead and downgrade the Hammerhead by one point for no line between figures

Deduct two points from the Square Loop for the 2:1 ratio error in the last horizontal line

Deduct two points from the Square Loop for the 2:1 ratio error in the last horizontal Line, give the “benefit of the doubt” for completing the square loop, and deduct one additional point from both the Square Loop and the Hammerhead for "no line between"

Question 28

A competitor flies an Immelman (half-loop up + half-roll) like this:



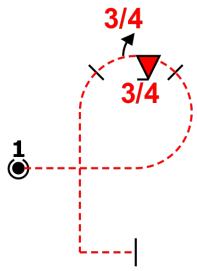
How many points should you deduct for the long line between the radius and the roll?

(Hint: Rules 27.7.1, 27.11.2)

Answer
One point
At least one point
2 points
An amount proportional to the error

Question 29

A competitor flies the following figure:



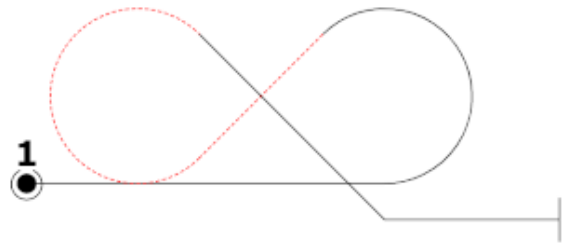
You see roll combination begin 5° before the apex of the loop and end 15° after the apex, and the pause between the two roll elements occurs 5° off center. You **MUST** award a downgrade of:

(Hint: Rule 27.12.3)

Answer
1 point for the non-centered combination
2 points for the non-centered combination
1 point for the non-centered combination plus 1 point for the non-centered pause between rolls
2 points for the non-centered combination plus 1 point for the non-centered pause between rolls

Question 30

A competitor flies an "inside-outside eight" (Aresti 7.8.1.1):



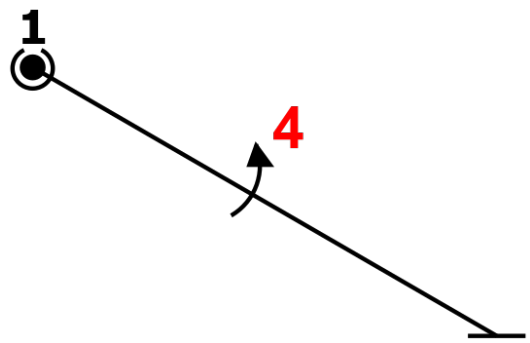
You notice that the second radius is half the size of the first. Assuming no other faults, you **MUST** deduct:

(Hint: Rules 27.13.2, 27.13.4)

Answer
0.5 points
At least 0.5 points, and be consistent across competitors
2 points
5 points

Question 31

A competitor flies the following figure:



You notice that the aircraft's heading is 5° upwind relative to the Y axis, and it is drifting downwind. You **MUST**:

(Hint: Rules 27.5.2, 27.6.1, 27.14.1)

Answer
Not deduct because the heading offset matches the downwind drift
Deduct at least 0.5 points for the downwind drift
Deduct 1 point for the heading deviation
Deduct 1 point for the heading deviation and at least 0.5 points for the downwind drift

Question 32

During a rolling turn, you see the roll rate slow down, speed up, and then stop momentarily before resuming. Assuming no other faults, you **MUST** deduct:

(Hint: Rules 27.7.1, 28.6.5, 28.6.6)

Answer
At least one point
an amount proportional to the errors observed
At least three points
Between two and three points

Question 33

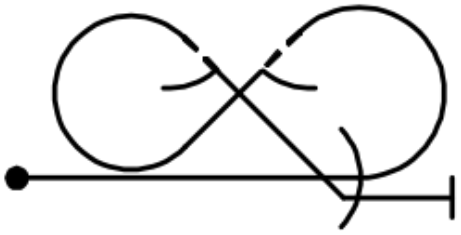
Which one of the following statements is **INCORRECT**?

(Hint: Rules 26.9.2, 28.9.2, 28.9.4, 34.20.5.1)

Answer
A tailslide drawn with a dashed line indicates wheels up tailslide
After a tailslide pivot, the aircraft may swing past vertical without penalty
Any tailslide on the X axis must be flown as drawn with respect to the official wind
A glider performing a tailslide is only required to slide by a visible amount

Question 34

A competitor is about to fly a Cuban-8 (Aresti Figure 7.8.4.1):



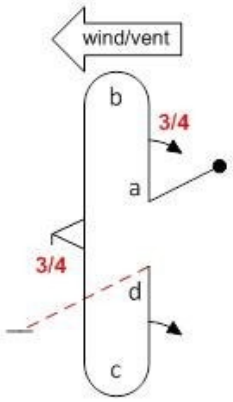
Which one of the following statements is **INCORRECT**?

(Hint: Rules 28.16.2, 28.16.3, 28.16.4, 34.20.6.1)

Answer
The two looping lines must have matching radii
The centers of the looping lines must match in altitude
The horizontal entry and exit lines need not match the top and/or bottom of the looping segments if there is a single linked roll of more than 360 degrees or two unlinked rolls on the initial or final 45-degree line
The centers of the looping segments must be at the same altitude for both Power and Glider competitors

Question 35

In this Double Humpty Bump:



(Hint: Rules 26.9.2, 26.9.3, 28.18.1)

Answer

Radii a, b, c, and d may all be different. The first half loop may be flown upwind or downwind on the X axis and the second half loop in either direction on the Y axis. The exit line may be flown in either direction on the Y axis.

Radius ‘d’ must equal ‘a’ while radii ‘b’ and ‘c’ need not match any other radius. The first half loop must flown downwind, and the second half loop flown in either direction on the Y axis.

Radii a, b, c, and d may all be different. The first half loop must be flown downwind and the second half loop must be flown in a direction on the Y axis which results in the exit direction being the same as the entry direction.

Radius ‘c’ must equal ‘b’ while radii ‘b’ and ‘c’ need not match any other radius. The half loops may be flown in either direction.

Question 36

As a competitor executes a four-point roll, you see the aircraft slightly (i.e. less than 2.5 degrees) over-rotated at each of the four stops, and the hesitation between the second and third quarter-rolls is longer than the first.
The **MINIMUM** downgrade for those errors is:

(Hint: Rules 27.6.1, 28.21.2, 28.21.4)

Answer
1 point
2 points
3 points
4 points

Question 37

Observing a snap roll, you never see any pitch change, but the nose does yaw followed by autorotation as indicated by the conical motion of the longitudinal axis. Assuming no other faults, the proper score is:

(Hint: Rules 28.22.2, 28.22.4)

Answer
0.0
HZ
8.0
10.0

Question 38

Which of the following statements about Presentation marks is **CORRECT**?

(Hint: Rules 29.3.1, 29.3.2)

Answer
One factor in the Presentation score is balance on the X axis
The Presentation score includes all figures graded during the performance
Judges must apply their methodology consistently to every pilot
All of the above

Question 39

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

(Hints: Rules 35.12.1, 35.13, 35.14)

Answer
There are ten Freestyle objectives
Maneuvers may be flown on multiple axes of flight (in addition to the usual X and Y axis)
Grades for each objective range from 10.0 to 0.0 in increments of 0.5
All of the above