



QUIZ

SPEED

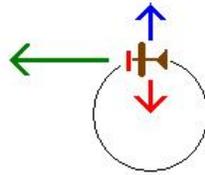
Name _____

Class Period _____

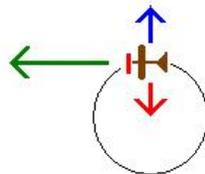
Directions: Write the answer on the line that precedes each question.

1. _____ Which of the following equations is true?
(Remember that c = circumference, d = diameter, and r = radius)
- A) $r = c$
 - B) $c = 2\pi r$
 - C) $r = 2dc$
 - D) $c = \pi r$

2. _____ A plane is flying around its pylon. In what direction is centripetal force acting?
- I) Inward
 - O) Outward
 - S) Straight



3. _____ A plane is flying around its pylon when its string breaks. In what direction will the plane fly according to Newton's law of inertia?
- O) Outward
 - S) Straight
 - I) Inward



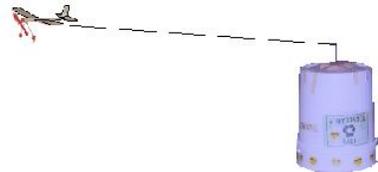
4. _____ The formula for speed is...
- A) time x distance
 - B) distance / speed
 - C) speed / distance
 - D) speed / time
 - E) distance / time

5. _____ The radius of the flight circle is measured from the nail on the pylon to...
- E) the end of the string
 - T) the tip of the outer wing
 - F) the fuselage

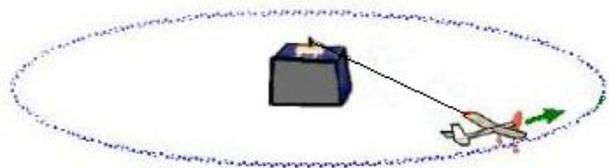


6. _____ If the radius were measured in inches instead of meters, the units for the average speed would be...
- A) Meters per inch
 - B) Inches/meter
 - C) Inches/second
 - D) Feet per second
 - E) Miles per hour

7. _____ How would you determine the average speed of a JETSTREAM?
- A) Divide the total distance flown by the time in the air.
 - B) Multiply the number of laps by the time in the air.
 - C) Multiply total distance flown by the time in the air
 - D) Divide the number of laps by the time in the air.



8. _____ Both Sally's plane and Tyrone's plane flew a total of 5 laps on the same pylon. The total time for Sally's plane was 10 seconds and the total time for Tyrone's plane was 13 seconds. Which plane was faster?
- A) Sally's plane
 - B) Can't tell
 - C) Same speed
 - D) Tyrone's plane



9. _____ The distance flown is equal to...
- A) # of laps x Circumference
 - B) # of laps x Circumference / time
 - C) Radius x Circumference
 - D) # of laps x Radius



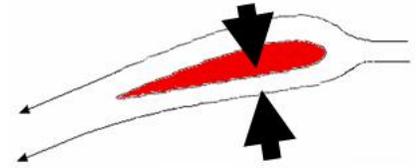
10. _____ Which value for π is NOT appropriate to use?
- A) 3.14159
 - B) 3
 - C) 3.14
 - D) $22/7$

11. _____ What would be the average laps, if the three trials were 6.8 laps, 7.9 laps and 6.3 laps?
- A) 6.8
 - B) 7.0
 - C) 10.5
 - D) 21



ARCONIC

12. _____ Which of the following is true?
 A) When the wing accelerates upward, the air pushes harder.
 B) The wing pushes harder than the air.
 C) The air pushes harder than the wing.
 D) The air and wing always push with equal and opposite force.



1. **B) $c = 2\pi r$** Which of the following equations is true? (Remember that c = circumference, d = diameter, and r = radius)
2. **I) Inward** A plane is flying around its pylon. In what direction is centripetal force acting?
3. **S) Straight** A plane is flying around its pylon when its string breaks. In what direction will the plane fly according to Newton's law of inertia?
4. **E) distance/time** The formula for speed is...
5. **F) the fuselage** The radius of the flight circle is measured from the nail on the pylon to...
6. **C) Inches/second** If the radius were measured in inches instead of meters, the units for the average speed would be...
7. **A) Divide the total distance flown by the time in the air.** How would you determine the average speed of a JETSTREAM?
8. **A) Sally's plane** Both Sally's plane and Tyrone's plane flew a total of 5 laps on the same pylon. The total time for Sally's plane was 10 seconds and the total time for Tyrone's plane was 13 seconds. Which plane was faster?
9. **A) # of laps x Circumference** The distance flown is equal to...
10. **B) 3** Which value for π is NOT appropriate to use?
11. **B) 7** What would be the average laps, if the three trials were 6.8 laps, 7.9 laps and 6.3 laps?
12. **D) The air and wing always push with equal and opposite force.** Which of the following is true?



ARCONIC