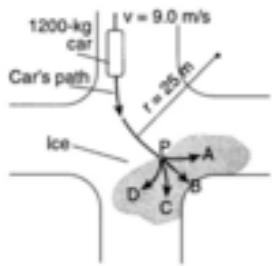


Circular Motion Review, pt.1



1. A car hits a patch of ice at point P and loses all frictional force. Where does it go?

[Hide answers](#)

- A B C D

Kah?ot!

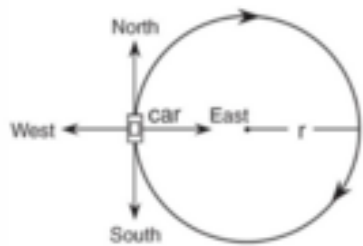
2. A satellite makes 4 revs about the Earth in 8 hrs. The period of revolution of the satellite is [Hide answers](#)

- 1/2 hour 2 hours 8 hours 32 hours

Kah?ot!

3. If the velocity of a car on a circular track doubles, its centripetal acceleration would be [Hide answers](#)

- 1/2 as great 2 times greater 1/4 as great 4 times greater



4. When the car is in the position shown, its acceleration is directed to the [Hide answers](#)

- north south east west

Kah?ot!

5. The centripetal force acting on the space shuttle as it orbits Earth is equal to the shuttle's [Hide answers](#)

- inertia momentum velocity weight

Kahoot!

6. An ice skater spins with arms extended. When she pulls her arms in her rotational inertia [Hide answers](#)

increases decreases remains the same

Kahoot!

7. A 0.5 kg object moves in a circle of radius 0.25 m at 4 m/s. What's F_c ? [Hide answers](#)

32 N 8 N 64 N 16 N

Kahoot!

8. A ring and a solid disk roll down a hill together. Which reaches the bottom first?

[Hide answers](#)

neither - reach bottom simultaneously ring disk need more info

Kahoot!

9. An ice skater spins with arms folded. When she extends her arms outward her angular momentum [Hide answers](#)

increases decreases remains the same

Kahoot!

10. An object will maintain its angular momentum unless acted upon by [Hide answers](#)

a parallel force a kinetic energy an angular momentum a net torque

Circular Motion Review, pt.2

Kah?ot!

1. A 2×10^3 kg car travels at 12 m/s around a circle with $r = 30$ m. What is a_c ?

[Hide answers](#)

0.4 m/s²

4.8 m/s²

800 m/s²

9600 m/s²

Kah?ot!

2. You swing a 0.5 kg yoyo in a circle w/ $r = 2$ m thru 10 revs in 5 s. What's the angular speed? [Hide answers](#)

12.6 rad/s

6.3 rad/s

2.0 rad/s

25.2 rad/s

Kah?ot!

3. You swing a 0.5 kg yoyo in a circle w/ $r = 2$ m thru 10 revs in 5 s. What's the linear speed? [Hide answers](#)

12.6 m/s

6.3 m/s

2.0 m/s

25.2 m/s

Kah?ot!

4. You swing a 0.5 kg yoyo in a circle w/ $r = 2$ m thru 10 revs in 5 s. What's a_c ?

[Hide answers](#)

12.6 m/s²

6.3 m/s²

318 m/s²

158.8 m/s²

Kah?ot!

5. You swing a 0.5 kg yoyo in a circle w/ $r = 2$ m thru 10 revs in 5 s. What's F_c ?

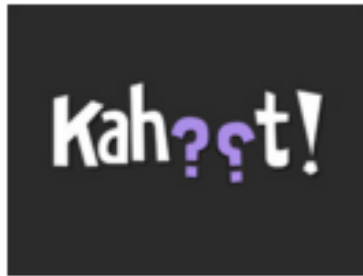
[Hide answers](#)

12.6 m/s²

6.3 m/s²

318 m/s²

158.8 m/s²



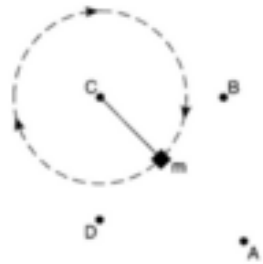
6. To help in loosening a rusty bolt [Hide answers](#)

exert a larger force

extend the length of the lever arm

be sure to exert the force perpendicular to the lever arm

all of the above ✓



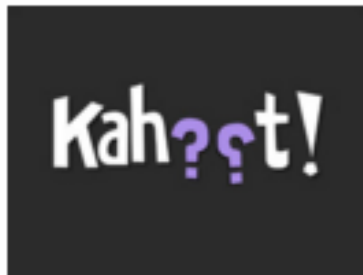
7. The object is being swung at a constant speed. The net acceleration acts directed toward point [Hide answers](#)

A

C ✓

D

there is no net acceleration



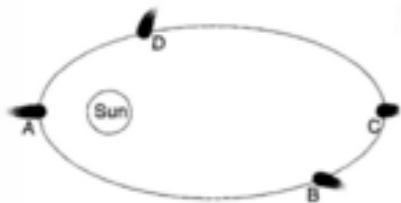
8. Which has more rotational inertia, a solid sphere or a hollow sphere w/ equal mass and radius? [Hide answers](#)

solid sphere

hollow sphere ✓

both the same

not enough info



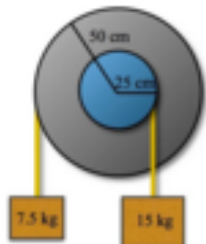
9. Where in the comet's orbit will it have the greatest speed? [Hide answers](#)

A ✓

B

C

D



10. Which way will the pulley rotate? [Hide answers](#)

clockwise

counterclockwise ✓

won't rotate ✓

not enough info