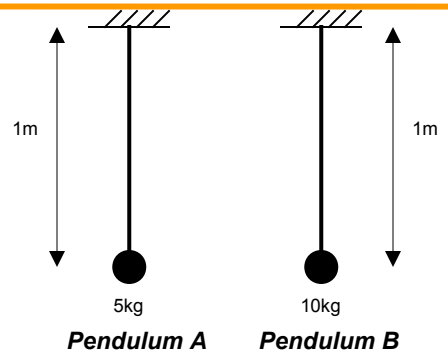
Quiz

Set 1

1.



In the two pendulums shows in the figure

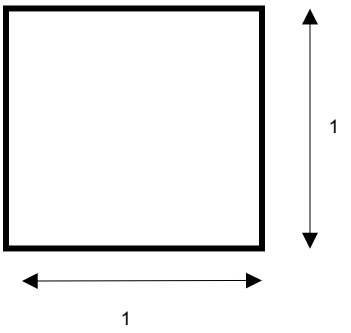
a) both of them have same time period

b) Pendulum A has smaller time period

c) Pendulum B has smaller time period

d) Insufficient Date

2.



What is the area of the largest circle that will fit completely inside the square

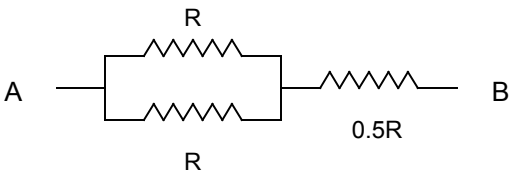
a) π

b) 2π

c) $\pi/2$

d) $\pi/4$

3.



What is the net resistance of between points A and B in the figure above

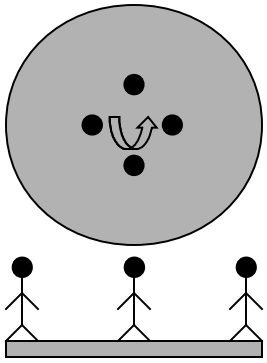
a) 1.5R

b) R

c) 2R

d) R/2

4.



In the merry-go-round all people start walking outwards (towards the periphery) simultaneously. What will happen to the speed of the merry-go-round

a) it will increase

b) it will decrease

c) will remain the same

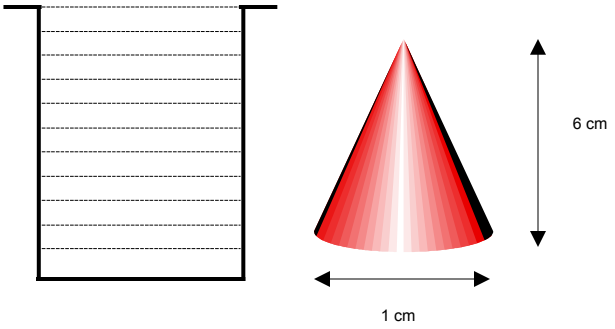
5.

The first phase of the 2011 cricket world cup follows the round robin format. Group A has 7 teams. In the first phase all teams will play each other. How many games will be played in Group A in the first phase

a) 21 b) 28

c) 7 d) 256

6.

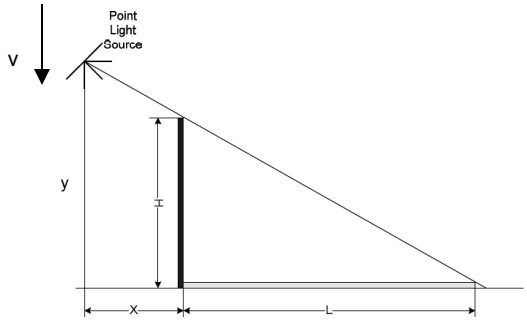


The cone (weight 24.5 grams) is gently placed into the beaker. What would be the weight of the water displaced from the beaker

a)24.5 grams b) 3.14 grams

c) 6.28 grams d) 1.57 grams

7.

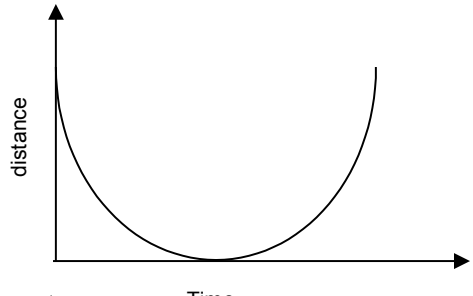


The light source is down with a velocity ***v.*** whats the rate of change of the length of the shadow

a) v b) Lh^2VX

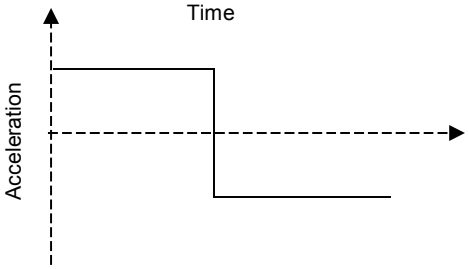
c) Vx^2 d) L^2V/hx

8.

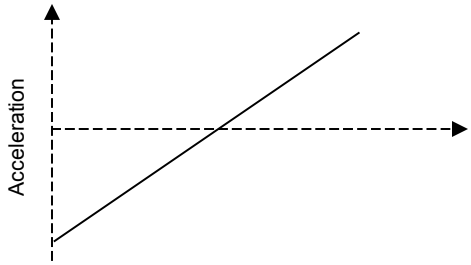


The figure to the left represents the distance time graphs of an object traveling in a straight line (it's a parabola)

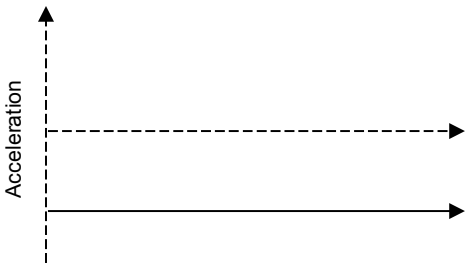
Which of the following represent the acceleration time graph of the object



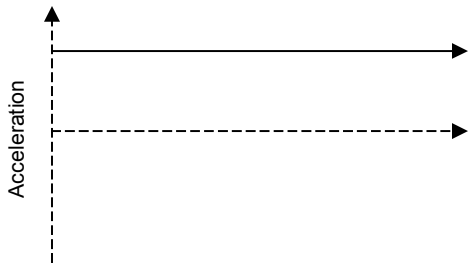
a)



b)



c)

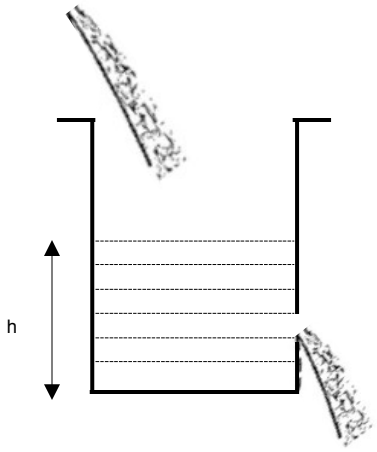


d)

9. A car travels up a hill at 10kmh. It them travels down the same hill at 40kmh. What is the average speed of the car?

a. 45 kmh
b. 16 kmh
c. 40 kmh
d. 37.5 kmh

10.



Water is flowing into the beaker at 48 liters per minute which has an initial water level at 15 cm. The rate at which water leaks is proportional to the height of the water ***h (in cm)*** and is equal to $3h^2$ liters per minute. At what height will the water in the beaker stabilize

a) 5 cm
b) beaker will empty
c) beaker will overflow
d) 4 cm