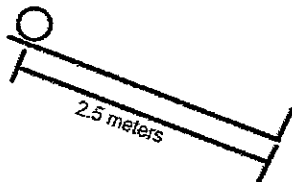


Motion Practice MC questions

Multiple Choice

Identify the choice that best completes the statement or answers the question.

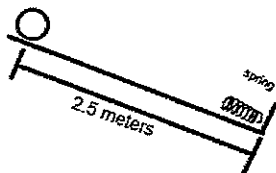
A ball rolls down the ramp a distance of 2.5m in a time of 2.5 seconds



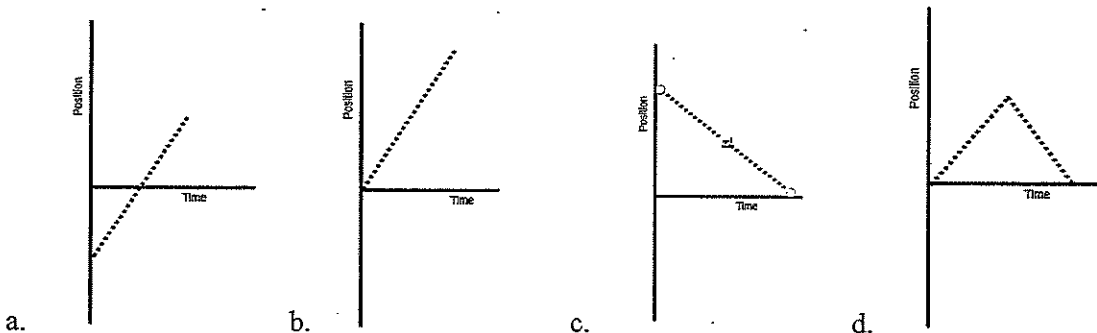
- _____ 1. A ball rolls down the ramp, calculate the acceleration of the ball in m/s^2
 - a. -9.8
 - b. -0.08
 - c. 0.8
 - d. 80

- _____ 2. Calculate the velocity of the ball at the 2.5m mark.
 - a. 0.1m/s
 - b. 10m/s
 - c. 2 m/s
 - d. 19.6 m/s

- _____ 3. A student is sledding down JennerJohn hill, what would be a reasonable acceleration?
 - a. $9.8m/s^2$
 - b. $-9.8 m/s^2$
 - c. $-2 m/s^2$
 - d. $+4 m/s^2$



- _____ 4. A ball rolls down a ramp, hits a spring and bounces back up. Which of the following position time graphs would represent the motion of the ball going down and then back up to its original location. We are tracking horizontal movement.



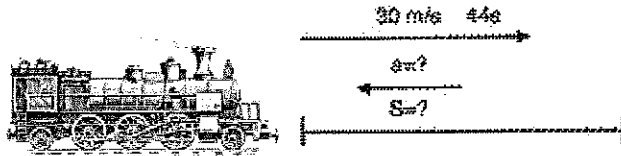
- _____ 5. A little kid rolls a bowling ball at 2m/s 20m down a ally where it comes to a stop. How much time did the ball take to roll down the ally?
 - a. 10 seconds
 - b. 25 seconds
 - c. 50 seconds
 - d. This problem is missing information

- _____ 6. A plane starts from rest and accelerates along the ground before takeoff. It moves 600 meters in 12 seconds. What is its velocity at the end of 12 seconds?



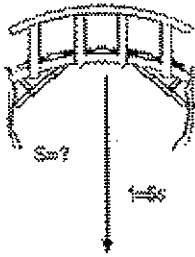
- a. 70
b. 80
c. 90
d. 100

- _____ 7.



- A train running at 30 m/s is slowed to a stop in 44 seconds. Find the acceleration and the stopping distance.

- a. $a=-0.68 \text{ m/s}^2$, $S=662\text{m}$
b. $a=-1.68 \text{ m/s}^2$, $S=662\text{m}$
c. $a=-0.68 \text{ m/s}^2$, $S=552\text{m}$
d. $a=-1.68 \text{ m/s}^2$, $S=552\text{m}$



- _____ 8.

- a. 103 meters
b. 123 m
c. 143 m
d. 163 m

- _____ 9.

- A rock is thrown down from a cliff at 25 m/s. If it takes 3 seconds to hit the bottom, how high is the cliff?

- a. 99 m
b. 109 m
c. 119 m
d. 129 m

- _____ 10. If I graph velocity (m/s) vs time (s) what will be the resulting units of my slope?

- a. Meters
b. m/s
c. m/s^2
d. m/s^3