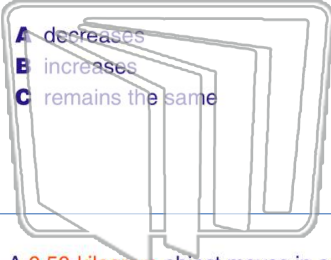




Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

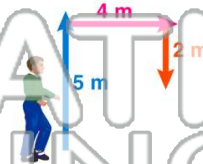
1 As the **angle** between two concurrent forces **decreases**, the magnitude of the force required to produce **equilibrium**

- A decreases
- B increases
- C remains the same



2 A child walks **5.0 meters north**, then **4.0 meters east**, and finally **2.0 meters south**. What is the magnitude of the **resultant displacement** of the child after the entire walk?

- A 1.0 m
- B 5.0 m
- C 3.0 m
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# NEW PATH LEARNING

3 A **0.50-kilogram** object moves in a horizontal circular path with a **radius of 0.25 meter** at a constant speed of **4.0 meters per second**. What is the **magnitude of**

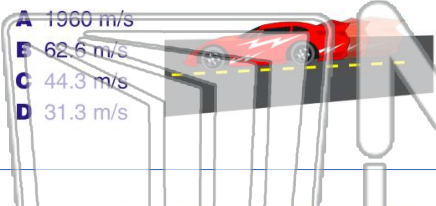
4 Which situation will produce the **greatest change of momentum** for a 1.0-kilogram cart?



5 **PREVIEW**  
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7 **second<sup>2</sup>**. What is the car's **speed** after it has traveled **200 meters**?

- A 1960 m/s
- B 62.6 m/s
- C 44.3 m/s
- D 31.3 m/s



height of **4.0 meters**. What is the **speed of the ball 0.70 second** after it is released? [Neglect friction.]

- A 0.50 m/s
- B 7.4 m/s
- C 9.8 m/s
- D 15 m/s



9 A soccer player kicks a ball with an initial velocity of **10 meters per second** at an angle of **30°** above the horizontal. The **magnitude of the horizontal component of the ball's initial velocity** is

- A 5.0 m/s
- B 8.7 m/s
- C 9.8 m/s
- D 10. m/s



10 A **1.0-kilogram** laboratory cart moving with a velocity of **0.50 meter per second due east** collides with and sticks to a similar cart initially at rest. After the collision, the two carts move off **together** with a velocity of **0.25 meter per second due east**. The **total momentum** of this frictionless system is

- A zero before the collision
- B zero after the collision
- C the same before and after the collision
- D greater before the collision than after the collision



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

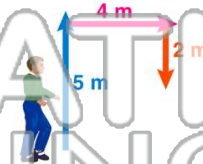
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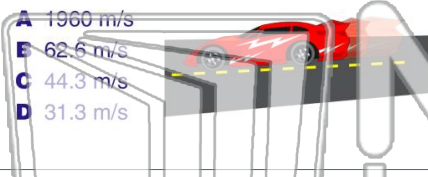
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