ARKANSAS PHYSICS · UNIT 1 · 5 QUESTIONS

Kinematics and Dynamics — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A swimmer does freestyle in a clear blue outdoor swimming pool lane. A swimmer covers 240 meters in 12 seconds at a steady speed The speed of the swimmer is**



A 12 meters per second

B 20 meters per second

C 24 meters per second

D 30 meters per second

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2 **An object speeds up from rest to 30 meters per second in 5 seconds The acceleration of the object is**

- A 5 meters per second squared
- B 10 meters per second squared
- C 6 meters per second squared
- D 15 meters per second squared

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3 **A cart starts at 10 meters per second and accelerates at 2 meters per second squared for 4 seconds The displacement of the cart is**

- A 48 meters
- B 64 meters
- C 72 meters
- D 56 meters

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4 **A ball starts at 5 meters per second and accelerates at 3 meters per second squared over 4 meters The final speed of the ball is**

- A 7 meters per second
- B 6 meters per second
- C 8 meters per second
- D 9 meters per second

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5 **Use 10 meters per second squared for gravity A rock dropped from rest falls for 5 seconds The distance the rock falls in 5 seconds is**

- A 50 meters
- B 125 meters
- C 100 meters
- D 150 meters

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ANSWER KEY

1. B
2. C
3. D
4. A
5. B

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