ARIZONA PHYSICS · UNIT 1 · 10 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 projectile has horizontal speed 15 m/s and stays in the air for 6 s. Its horizontal range is**

- A 21 m
- B 90 m
- C 60 m
- D 150 m

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2 **A net force of 50 N acts on a 10 kg object. Its acceleration is**

- A 500 m/s²
- B 60 m/s²
- C 40 m/s²
- D 5 m/s²

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3 **Use g = 10 m/s². The weight of an 8 kg object is**

- A 0.8 N
- B 18 N
- C 80 N
- D 800 N

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4 **The coefficient of kinetic friction is 0.25 and the normal force is 120 N. The kinetic friction force is**

- A 480 N
- B 145 N
- C 30 N
- D 95 N

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5 **Forces of 90 N west and 40 N east act on an object. The net force is**

- A 130 N west
- B 130 N east
- C 50 N east
- D 50 N west

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6 **The weight of an object on the Moon is less than on Earth because its weight depends on**

- A its mass alone
- B the strength of gravity where it is
- C its volume alone
- D its speed alone

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7 **In the absence of air resistance, two falling objects of different masses dropped together will**

- A fall at different rates
- B hit the ground at the same time
- C float in the air
- D move upward

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8 **An object speeds up from 12 m/s to 32 m/s in 4 s. Its average acceleration, in meters per second squared, is ____**

ANSWER _____

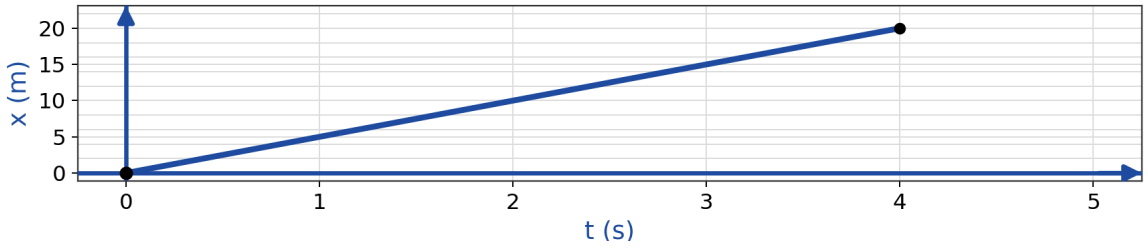
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9 **An object travels 180 m in 12 s. Its average speed, in meters per second, is ____**

ANSWER _____

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10 **The graph shows position against time for a moving object. The velocity of the object is**



A 5 m/s

B 0.2 m/s

C 20 m/s

D 80 m/s

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ANSWER KEY

1. B
2. D
3. C
4. C
5. D
6. B
7. B
8. 5
9. 15
10. A

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