Vectors and Kinematics — Practice Test

Northwest Territories Physics 12 (MPH--12) • 10 questions

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 stone is dropped from rest. Using g = 9.8 m per s squared, its speed after 5 s, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A projectile moves horizontally at 25 m per s for 2 s. Its horizontal distance, in metres, is**

ANSWER _____

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3 **A projectile is launched with a vertical speed of 29.4 m per s. Using g = 9.8 m per s squared, its total flight time, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A displacement of 5 m east plus 12 m north has a magnitude, in metres, of**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A displacement of 13 m has a horizontal component of 5 m. Its vertical component, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A train travels east at 30 m per s. A passenger walks west at 2 m per s relative to the train. The speed of the passenger relative to the ground, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **Displacement differs from distance travelled because displacement**

- A includes direction
- B is always larger
- C ignores the starting point
- D is measured in seconds

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8 **An object slowing down in a straight line has an acceleration that**

- A points opposite to its velocity
- B points in the same direction as its velocity
- C is always zero
- D points upward

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9 **Ignoring air resistance, the vertical acceleration of a projectile is**

- A zero
- B 9.8 m per s squared downward
- C 9.8 m per s squared upward
- D increasing with time

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10 **Two vectors of 10 m and 6 m in the same direction combine to a resultant, in metres, of**

- A 4
- B 6
- C 10
- D 16

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	49	**5.**	12	**9.**	B
2.	50	**6.**	28	**10.**	D
3.	6	**7.**	A		
4.	13	**8.**	A		

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