NOVA SCOTIA ADVANCED PHYSICS 12 · UNIT A

Two-Dimensional Motion — Practice Test

Nova Scotia Advanced Physics 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 velocity of 160 metres per second acts at an angle with sine 0.8 and cosine 0.6. The vertical component, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A projectile has horizontal speed 25 and vertical speed 20 metres per second . Using g = 10 , the range , in metres , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A projectile has horizontal speed 40 and vertical speed 10 metres per second . Using g = 10 , the range , in metres , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A boat crosses a river 300 metres wide at 10 metres per second relative to the water. The crossing time, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A boat crosses a river 80 metres wide at 4 metres per second relative to the water. The crossing time, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A projectile has horizontal speed 14 metres per second and falls for 5 seconds. The horizontal displacement, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A projectile has horizontal speed 22 metres per second and falls for 3 seconds. The horizontal displacement, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A boat heading straight across a river with a current lands**

A downstream of its starting point

B upstream

C directly opposite

D at the start

Understand It with Pulse | Flag a mistake

9 **In projectile motion with air resistance the horizontal acceleration is**

A zero

B not zero

C equal to g

D upward

Understand It with Pulse | Flag a mistake

10 **The trajectory of a projectile ignoring air resistance is a**

- A circle
- B straight line
- C parabola
- D hyperbola

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	128	**5.**	20	**9.**	B
2.	100	**6.**	70	**10.**	C
3.	80	**7.**	66		
4.	30	**8.**	A		

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