NOVA SCOTIA PHYSICS 11 · UNIT A · 25 QUESTIONS

Displacement, Velocity and Acceleration — 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 race car speeds up from 0 metres per second to 20 metres per second in 4 seconds. Its acceleration, in metres per second squared, is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **An object starts at 0 metres per second and accelerates at 2 metres per second squared for 5 seconds. The distance travelled, in metres, is**

ANSWER

Understand It with Pulse | Flag a mistake

3 **A car travels 100 metres in 5 seconds at constant speed. Its speed, in metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

4 **A curved distance time graph shows speed that is**

A zero

B constant

C negative always

D changing

Understand It with Pulse | Flag a mistake

5 **A scalar quantity has magnitude but no**

A unit

B value

C direction

D sign

Understand It with Pulse | Flag a mistake

6 **A ticker timer that makes 50 dots per second has a time interval between dots, in seconds, of**

A 0.02

B 0.05

C 0.5

D 50

Understand It with Pulse | Flag a mistake

7 **A vector quantity has both magnitude and**

A mass

B colour

C temperature

D direction

Understand It with Pulse | Flag a mistake

8 **Acceleration is the rate of change of**

A distance

B velocity

C mass

D force

Understand It with Pulse | Flag a mistake

9 **An object at rest has velocity equal to**

A zero

B its mass

C gravity

D its distance

Understand It with Pulse | Flag a mistake

10 **A car moving at constant velocity has acceleration equal to**



A its speed

B zero

C gravity

D its mass

Understand It with Pulse | Flag a mistake

11 **Average velocity equals displacement divided by**

A mass

B time

C force

D distance only

Understand It with Pulse | Flag a mistake

12 **Deceleration is acceleration in the direction opposite to**

A gravity

B mass

C velocity

D distance

Understand It with Pulse | Flag a mistake

13 **Displacement can be negative because direction is given a**

A mass

B sign

C unit

D colour

Understand It with Pulse | Flag a mistake

14 **Displacement differs from distance because displacement includes**

A mass

B direction

C time

D speed only

Understand It with Pulse | Flag a mistake

15 **A red apple in free fall near Earth has acceleration of about**



A 9.8 metres per second squared

B 1 metre per second squared

C 20 metres per second squared

D 0 metres per second squared

Understand It with Pulse | Flag a mistake

16 **Instantaneous speed is the speed at a**

A particular moment

B whole trip only

C starting point only

D finish line only

Understand It with Pulse | Flag a mistake

17 **On a distance time graph the slope gives the**

A acceleration

B force

C speed

D mass

Understand It with Pulse | Flag a mistake

18 **On a velocity time graph the area under the line gives the**

A displacement

B acceleration

C force

D mass

Understand It with Pulse | Flag a mistake

19 **On a velocity time graph the slope gives the**

A displacement

B force

C speed only

D acceleration

Understand It with Pulse | Flag a mistake

20 **A race car speeds up from 10 metres per second to 30 metres per second in 5 seconds. Its acceleration, in metres per second squared, is**



ANSWER

Understand It with Pulse | Flag a mistake

21 **An object starts at 10 metres per second and accelerates at 2 metres per second squared for 4 seconds. The distance travelled, in metres, is**

ANSWER

Understand It with Pulse | Flag a mistake

22 **An object travels 240 metres in 8 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **An object speeds up from 5 metres per second to 25 metres per second in 4 seconds. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **An object starts at 0 metres per second and accelerates at 4 metres per second squared for 6 seconds. The distance travelled, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A race car travels 150 metres in 3 seconds at constant speed. Its speed, in metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	5	**10.**	B	**19.**	D
2.	25	**11.**	B	**20.**	4
3.	20	**12.**	C	**21.**	56
4.	D	**13.**	B	**22.**	30
5.	C	**14.**	B	**23.**	5
6.	A	**15.**	A	**24.**	72
7.	D	**16.**	A	**25.**	50
8.	B	**17.**	C		
9.	A	**18.**	A		

© 2026 Brett Robbins. All Rights Reserved.