

QUESTION

- **Displacement** is a vector (has a direction)
- **Distance** is a scalar (no direction)
- **Speed** is a scalar (no direction)
- **Velocity** is a vector (has a direction)

ANSWER

Q1. A car starts from rest and accelerates uniformly to a speed of 20 m/s in 10 s. Calculate the distance travelled by the car during this time.

A. Distance = 100 m. (Using the equation $s = ut + \frac{1}{2}at^2$ where $u = 0$, $t = 10$ and $v = 20$)

QUESTION

- **Acceleration** is a vector (has a direction)
- **Velocity** is a vector (has a direction)
- **Speed** is a scalar (no direction)
- **Distance** is a scalar (no direction)
- **Displacement** is a vector (has a direction)
- **Time** is a scalar (no direction)

Q2. A car starts from rest and accelerates uniformly to a speed of 20 m/s in 10 s. Calculate the distance travelled by the car during this time.

- **Distance** is a scalar (no direction)
- **Displacement** is a vector (has a direction)
- **Velocity** is a vector (has a direction)
- **Acceleration** is a vector (has a direction)
- **Time** is a scalar (no direction)

Q3. A car starts from rest and accelerates uniformly to a speed of 20 m/s in 10 s. Calculate the distance travelled by the car during this time.