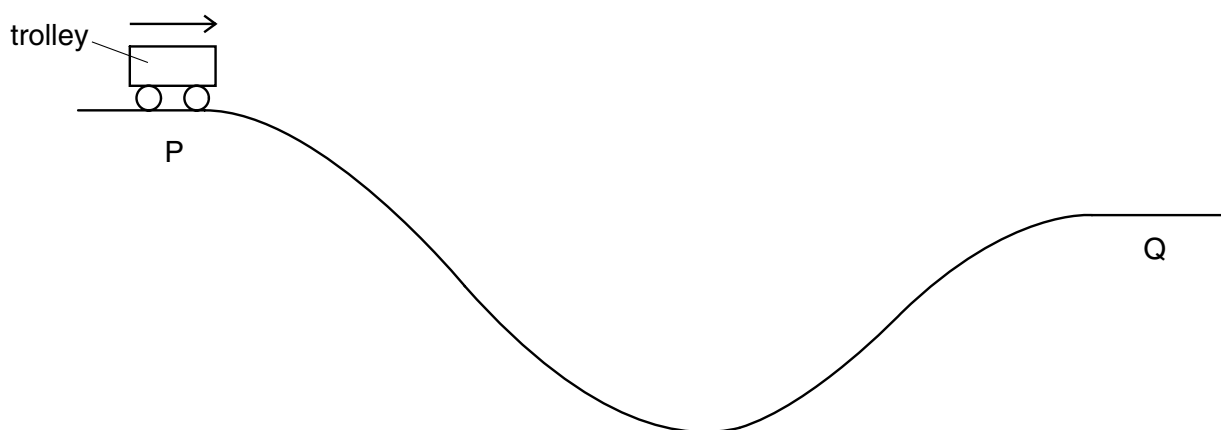


- 18** A trolley runs from P to Q along a track. At Q its potential energy is 50 kJ less than at P.



At P, the kinetic energy of the trolley is 5 kJ. Between P and Q the work the trolley does against friction is 10 kJ.

What is the kinetic energy of the trolley at Q?

- A** 35 kJ
  - B** 45 kJ
  - C** 55 kJ
  - D** 65 kJ
- 19** To travel at a constant speed, a car engine provides 24 kW of useful power. The driving force on the car is 600 N.
- At what speed does it travel?
- A**  $2.5 \text{ m s}^{-1}$
  - B**  $4.0 \text{ m s}^{-1}$
  - C**  $25 \text{ m s}^{-1}$
  - D**  $40 \text{ m s}^{-1}$
- 20** For a given liquid at atmospheric pressure, which process can occur at any temperature?
- A** boiling
  - B** evaporation
  - C** melting
  - D** solidification