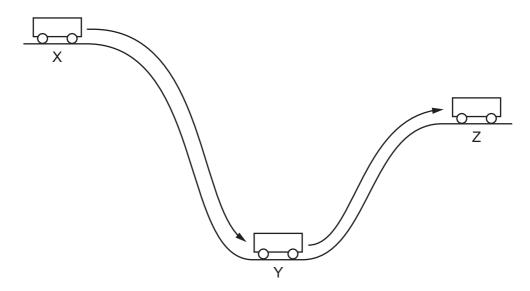
16 A trolley starts from rest at X. It rolls down to Y and eventually comes to rest at Z.



Which row is a possible summary of the energy changes during this process?

	X to Y	Y to Z
Α	$p.e. \rightarrow k.e.$	$k.e. \rightarrow p.e.$
В	$p.e. \rightarrow k.e.$	k.e. \rightarrow p.e. + heat
С	p.e. \rightarrow k.e. + heat	$k.e. \rightarrow p.e.$
D	p.e. \rightarrow k.e. + heat	k.e. \rightarrow p.e. + heat

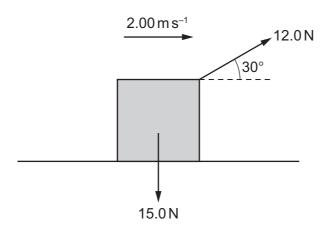
key

p.e. = potential energy

k.e. = kinetic energy

17 An object of weight 15.0 N is pulled along a horizontal surface at a constant velocity of 2.00 m s⁻¹.

The force pulling the object is $12.0\,\mathrm{N}$ at 30° to the horizontal, as shown.



What is the power used to move the object?

- **A** 12.0 W
- **B** 20.8 W
- **C** 24.0 W
- **D** 30.0 W