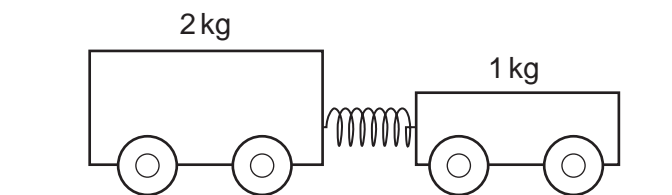


- 14 Two trolleys are placed together on a horizontal runway with a compressed spring between them.



When they are released, the 2 kg trolley moves to the left at  $2 \text{ m s}^{-1}$ .

How much energy was stored in the spring?

- A** 4 J                      **B** 6 J                      **C** 8 J                      **D** 12 J
- 15 An electric railway locomotive has a maximum mechanical output power of 4.0 MW. Electrical power is delivered at 25 kV from overhead wires. The overall efficiency of the locomotive in converting electrical power to mechanical power is 80 %.

What is the current from the overhead wires when the locomotive is operating at its maximum power?

- A** 130 A                      **B** 160 A                      **C** 200 A                      **D** 250 A

**Space for working**