

- 17 A man has a mass of 80 kg. He ties himself to one end of a rope which passes over a single fixed pulley. He pulls on the other end of the rope to lift himself up at an average speed of 50 cm s^{-1} .

What is the average useful power at which he is working?

- A 40 W B 0.39 kW C 4.0 kW D 39 kW

- 18 Which process does **not** require energy to be supplied?

- A boiling
B evaporation
C freezing
D melting

- 19 1.5 m^3 of water is mixed with 0.50 m^3 of alcohol. The density of water is 1000 kg m^{-3} and the density of alcohol is 800 kg m^{-3} .

What is the density of the mixture with volume 2.0 m^3 ?

- A 850 kg m^{-3} B 900 kg m^{-3} C 940 kg m^{-3} D 950 kg m^{-3}

Space for working