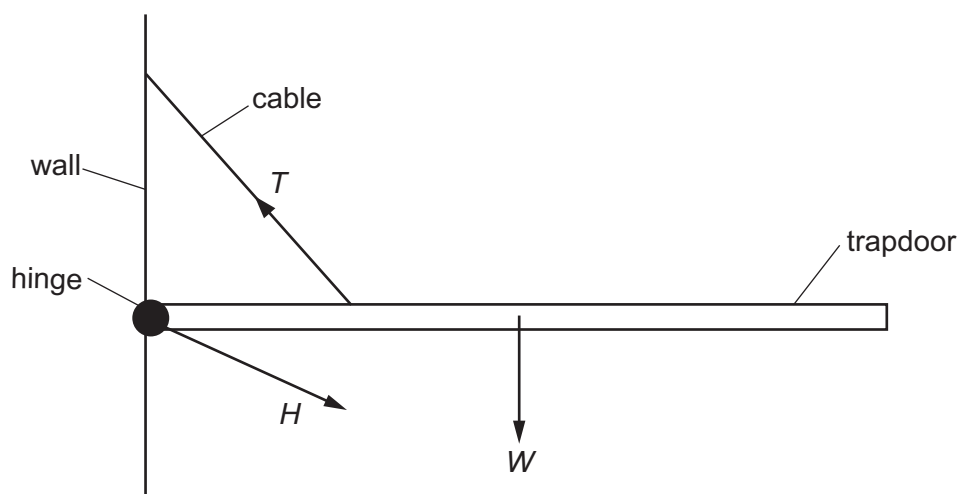


- 14 A hinged trapdoor is held closed in the horizontal position by a cable.

Three forces act on the trapdoor: the weight W of the door, the tension T in the cable and the force H at the hinge.



Which list gives the three forces in **increasing** order of magnitude?

- A** H, T, W **B** T, H, W **C** W, H, T **D** W, T, H
- 15 What is the definition of force?
- A** the product of mass and acceleration
B the product of mass and velocity
C the rate of change of momentum
D the rate of transfer of energy
- 16 A boat moves at a constant velocity v through still water.

A constant drag force F acts on the boat.

What is the power used by the boat to move through the water?

- A** $\frac{1}{2}Fv$ **B** Fv **C** $\frac{1}{2}Fv^2$ **D** Fv^2