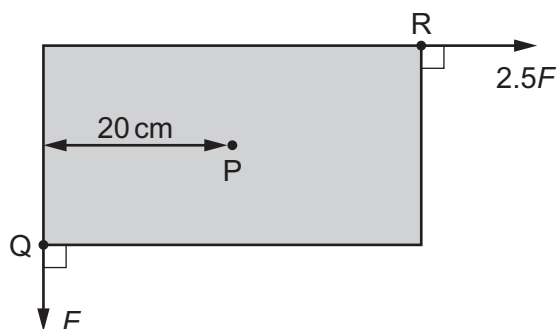


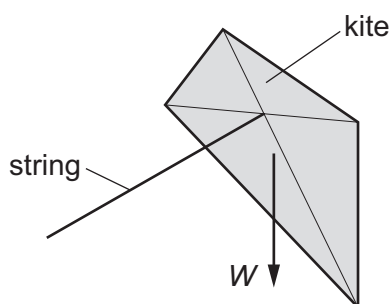
- 12 A uniform rectangular board is supported by a frictionless pivot at its centre point P.



Two forces act in the plane of the board. Force  $F$  acts at corner Q and force  $2.5F$  acts at corner R. The perpendicular distance between the line of action of force  $F$  and point P is 20 cm. The board is in equilibrium.

What is the area of the board?

- A**  $160\text{ cm}^2$       **B**  $320\text{ cm}^2$       **C**  $640\text{ cm}^2$       **D**  $1600\text{ cm}^2$
- 13 A kite is in equilibrium at the end of a string, as shown.



The kite has three forces acting on it: the weight  $W$ , the tension  $T$  in the string, and the force  $F$  from the wind.

Which vector diagram represents the forces acting on the kite?

