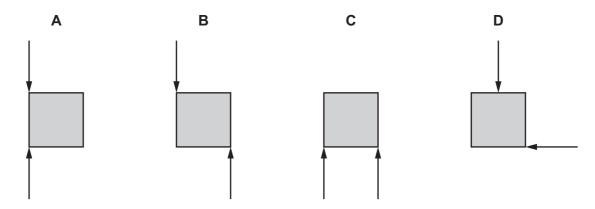
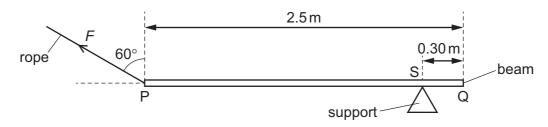
**14** An isolated object of negligible weight is acted on by two coplanar forces of the same magnitude.

In which diagram is the object in equilibrium?



**15** A uniform beam PQ rests horizontally on a support at point S.

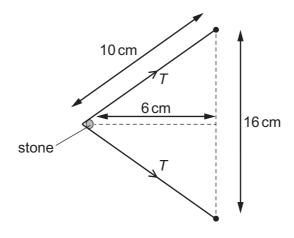


A rope is attached at one end of the beam. The rope is at an angle of  $60^{\circ}$  to the vertical and exerts a force F, in newtons, on the beam.

What is the moment, in N m, of the force F about the point S?

- **A** 1.1*F*
- **B** 1.3*F*
- **C** 1.9*F*
- **D** 2.2*F*

**16** The diagram shows the dimensions of an elastic cord used to project a stone. The tension in the cord is *T* when the cord is pulled into the shape shown.



Which force does the elastic cord exert on the stone?

- $\mathbf{A} \quad \frac{3}{5}T$
- **B**  $\frac{6}{5}7$
- **C**  $\frac{8}{5}$  7
- **D** 2*T*