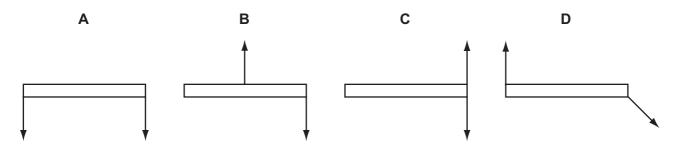
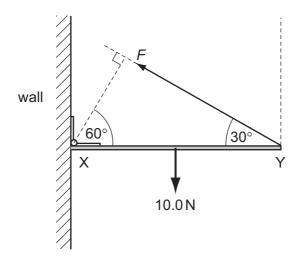
**15** The diagrams all show a pair of equal forces acting on a metre rule.

Which diagram shows forces that provide a couple and zero resultant force?



**16** A uniform rod XY of weight 10.0 N is freely hinged to a wall at X. It is held horizontal by a force *F* acting from Y at an angle of 30° to the horizontal, as shown.



What is the value of *F*?

- **A** 5.0 N
- **B** 8.7 N
- **C** 10.0 N
- **D** 20.0 N

Space for working