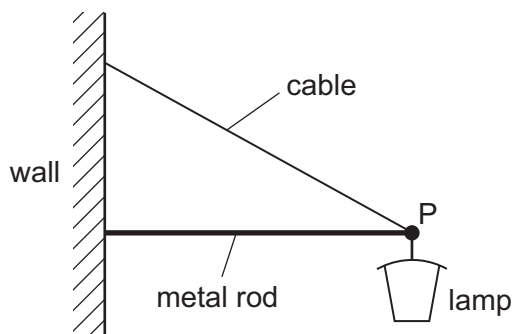
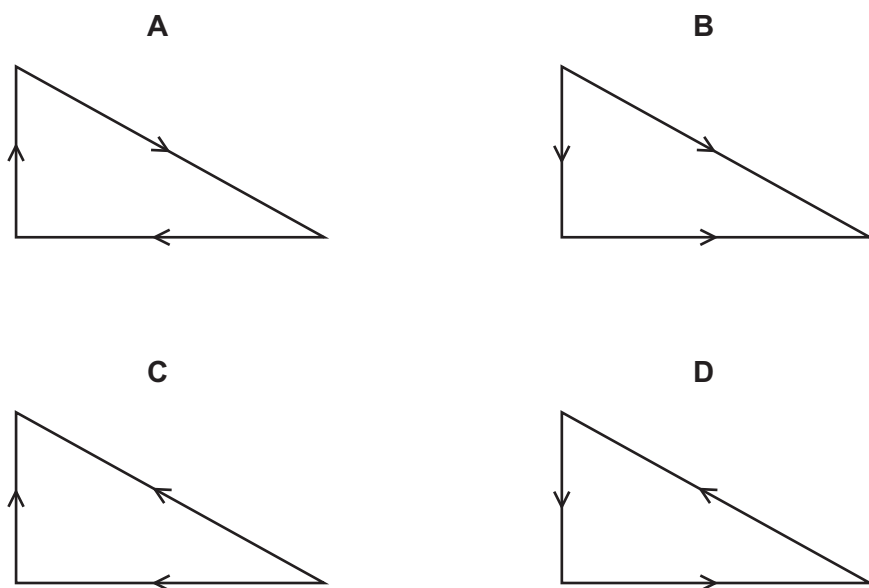


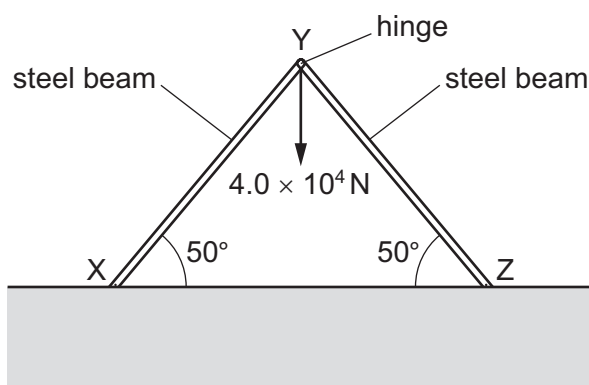
- 13 A street lamp is fixed to a wall by a metal rod and a cable.



Which vector triangle could represent the forces acting at point P?



- 14 Two rigid steel beams XY and YZ are fixed at their lower ends and are hinged at Y. Each beam is inclined at  $50^\circ$  to the horizontal, as shown. A weight of  $4.0 \times 10^4 \text{ N}$  hangs from Y. The structure is in equilibrium.



What is the force exerted by each beam on the hinge at Y?

- A**  $2.6 \times 10^4 \text{ N}$     **B**  $3.1 \times 10^4 \text{ N}$     **C**  $5.2 \times 10^4 \text{ N}$     **D**  $6.2 \times 10^4 \text{ N}$