



Oxford Cambridge and RSA

GCSE Physics B (Twenty First Century Science)
J259/03 Depth in physics (Higher Tier)

Question Set 37

1 Alex is a trapeze artist with the circus.

He hangs from a metal ring which is attached to two elastic ropes, as shown in Fig. 11.1.

The metal ring is in equilibrium.

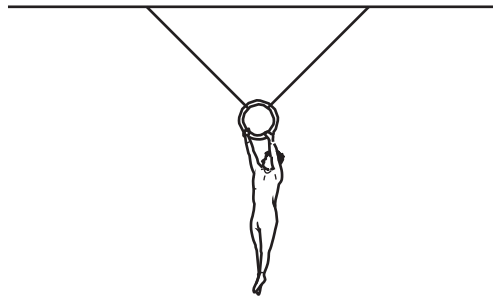


Fig. 11.1

(a) Define equilibrium.

[1]

(b) Fig. 11.2 shows two of the forces acting on the metal ring.

These two forces are tension forces caused by the two elastic ropes pulling on the metal ring.

(i) Draw an arrow on Fig. 11.2 to show the third force acting on the metal ring.

Label the arrow with the name of the force.

You do **not** need to draw the arrow to scale.

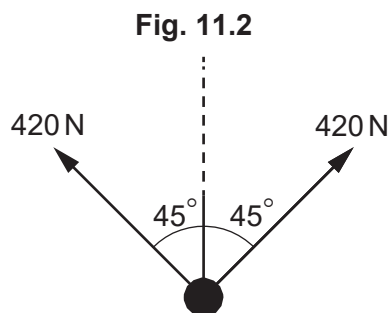


Fig. 11.2

(ii) What will happen to the metal ring and the elastic ropes at the moment that Alex lets go?

[2]

[1]

Total Marks for Question Set 37: 4

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