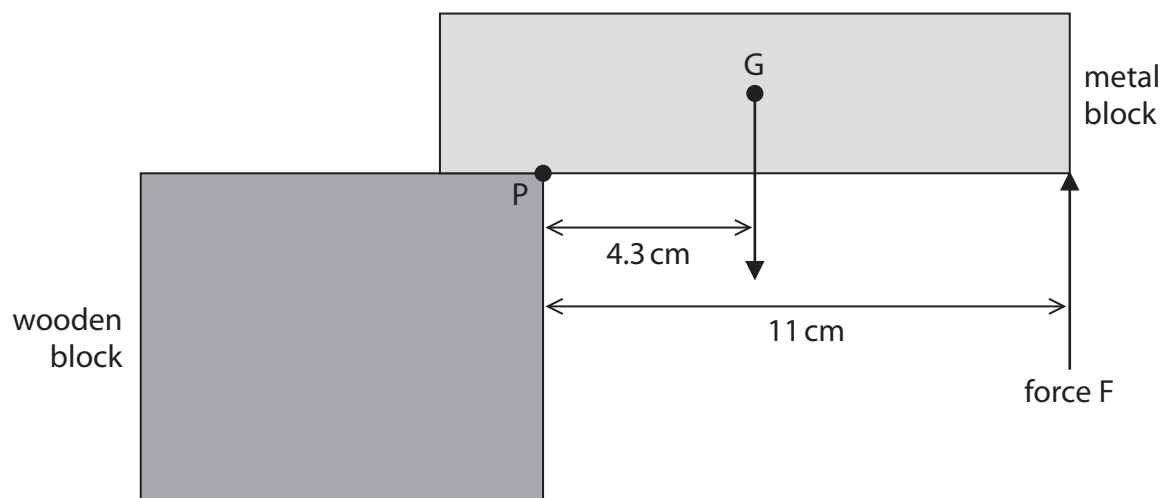


- 2 The diagram shows a metal block on top of a wooden block.

The metal block is held stationary by force  $F$ .



- (a) (i) The weight of the metal block acts through point  $G$ .

Give the name of point  $G$ .

(1)

- (ii) Name a piece of apparatus that could be used to measure the weight of the metal block.

(1)



- (b) (i) State the formula linking moment, force and perpendicular distance from the pivot. (1)

- (ii) The weight of the metal block is 0.68 N.

Show that the moment of the weight of the metal block about point P is approximately 2.9 N cm.

(1)

- (iii) Force F is applied to the metal block to stop it from moving.

Calculate the magnitude of force F.

(3)

force F = ..... N

**(Total for Question 2 = 7 marks)**

