

### Equation of the straight line Questions part3

1. a) Determine the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(2, -9)$  and has a gradient  $-8$ . b) State the particular equation of the straight line.
  2. a) Determine the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(1, -3)$  and has a gradient  $9$ . b) State the particular equation of the straight line.
  3. a) Determine the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(2, 9)$  and has a gradient  $10$ . b) State the particular equation of the straight line.
  4. a) Determine the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(3, -3)$  and has a gradient  $-5$ . b) State the particular equation of the straight line.
  5. a) Find the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(1, -5)$  and has a gradient  $-2$ . b) State the particular equation of the straight line.
  6. a) Find the values of  $m$  and  $c$  if the straight line  $y = mx + c$  passes through the point  $(-3, -1)$  and has a gradient  $5$ . b) State the particular equation of the straight line.
  7. The end-points of a straight line are  $C(9, 6)$  and  $D(-9, 2)$ . Find
    - (i) the length of  $CD$
    - (ii) the gradient of  $CD$
    - (iii) the mid-point of  $CD$
    - (iv) the intercept of  $CD$  on the  $y$ -axis
- (b) Hence write down the particular equation for the straight line  $CD$ .

8. The end-points of a straight line are  $G(1, 1)$  and  $F(3, -7)$ . Find

(i) the length of  $GF$

(ii) the gradient of  $GF$

(iii) the mid-point of  $GF$

(iv) the intercept of  $GF$  on the  $y$ -axis

(b) Hence write down the particular equation for the straight line  $GF$ .