



## CHAPTER 5: THE STRAIGHT LINE



### Paper 1

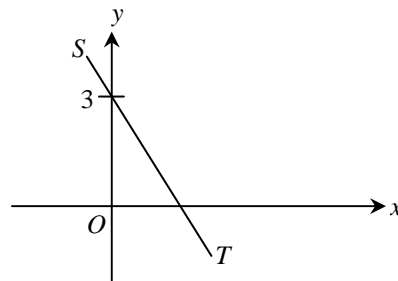
1. The coordinates of point  $G$  are  $(4, -2)$  and the gradient of the straight line  $GH$  is  $-2$ . The coordinates of point  $H$  could be

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- A**  $(-1, 6)$                       **C**  $(-1, 10)$   
**B**  $(-1, 8)$                       **D**  $(-1, 12)$

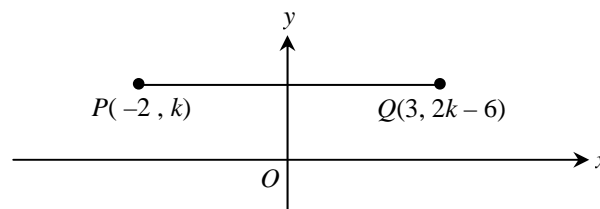
2. In the diagram, the gradient of the straight line  $ST$  is  $-6$ .

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Find the  $x$ -intercept of the straight line  $ST$ .

- A**  $\frac{1}{2}$                                       **C** 3  
**B** 2                                         **D** 18
3. The diagram shows a straight line  $PQ$  which is parallel to the  $x$ -axis.



The value of  $k$  is

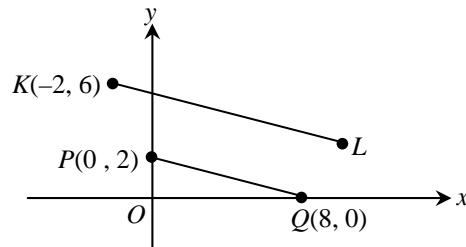
- A** 4                                         **C** 6  
**B** 5                                         **D** 7
4. A straight line passes through points  $R(0, -3)$  and  $T(h, 0)$ . Given the gradient of the straight line is  $\frac{1}{4}$ . Find the value of  $h$ .

- A**  $-12$                                       **C**  $\frac{4}{3}$   
**B**  $-\frac{4}{3}$                                       **D** 12

 **Paper 2**

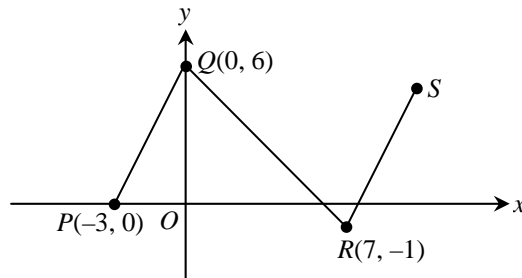
1. The diagram shows two parallel straight lines,  $PQ$  and  $KL$ , drawn on a Cartesian plane.

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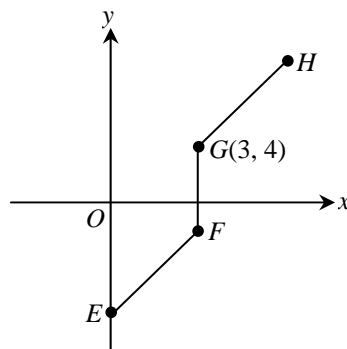
Find

- (a) the equation of the straight line  $KL$ ,
  - (b) the  $x$ -intercept of the straight line  $KL$ .
2. In the diagram, the straight lines  $PQ$  and  $RS$  are parallel.



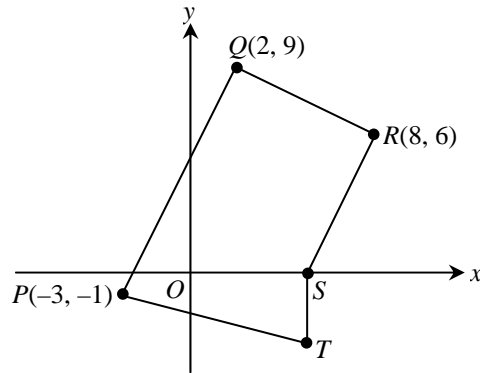
Find

- (a) the equation of the straight line  $QR$ ,
  - (b) the  $x$ -intercept of the straight line  $RS$ .
3. In the diagram, the straight line  $GF$  is parallel to the  $y$ -axis and the straight line  $EF$  is parallel to the straight line  $GH$ . The equation of the straight line  $EF$  is  $y = 2x - 8$ .



- (a) State the equation of the straight line  $GF$ .
- (b) Find
  - (i) the equation of the straight line  $GH$ ,
  - (ii) the  $x$ -intercept of the straight line  $GH$ .

4. In the diagram, the straight line  $PQ$  is parallel to the straight line  $SR$  and the straight line  $ST$  is parallel to the  $y$ -axis.



Find

- (a) the equation of the straight line  $SR$ ,
- (b) the  $x$ -intercept of the straight line  $ST$ .