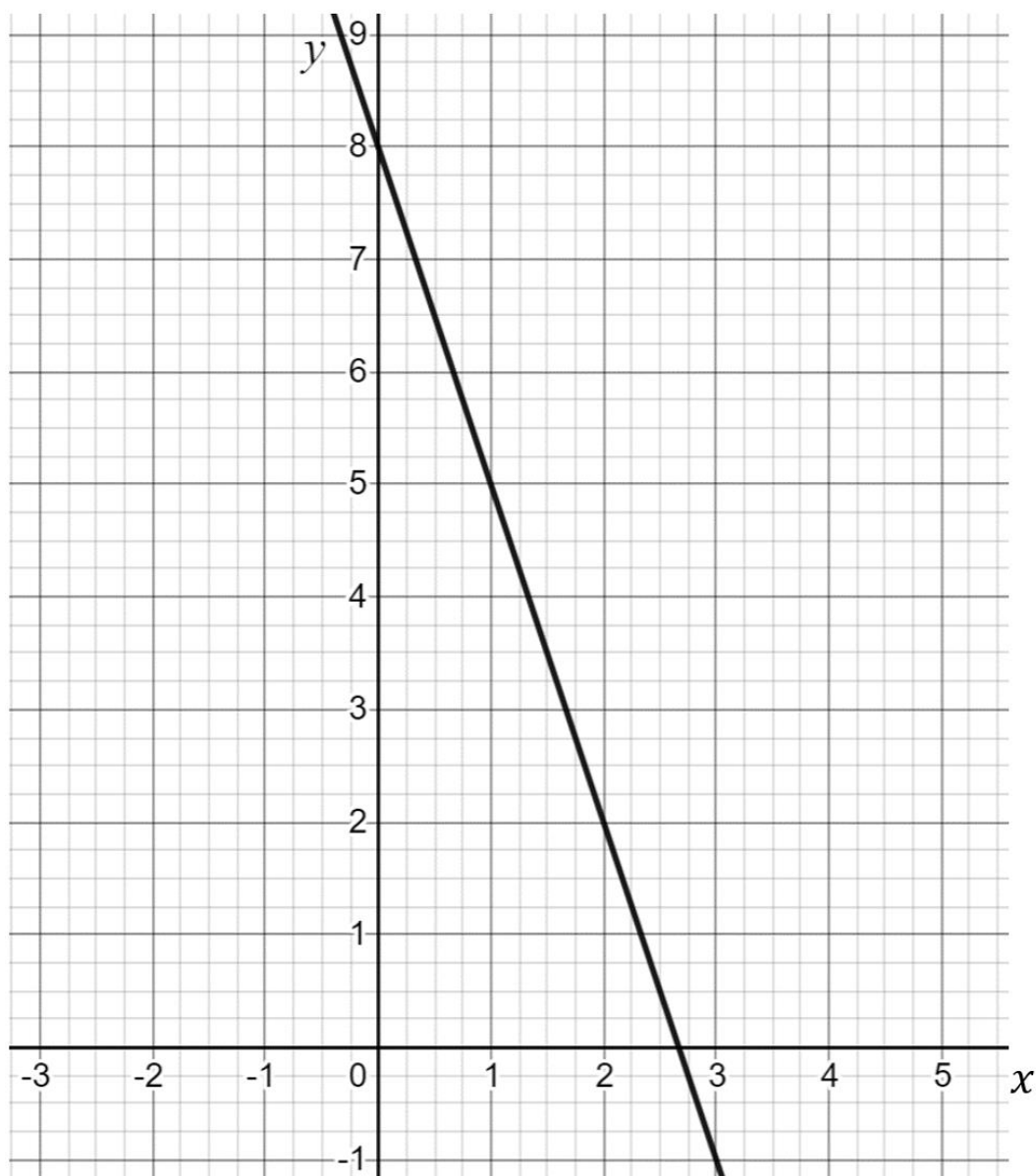




## Gradient of a Straight Line Exam Practice

Q1. Find the gradient of the line:

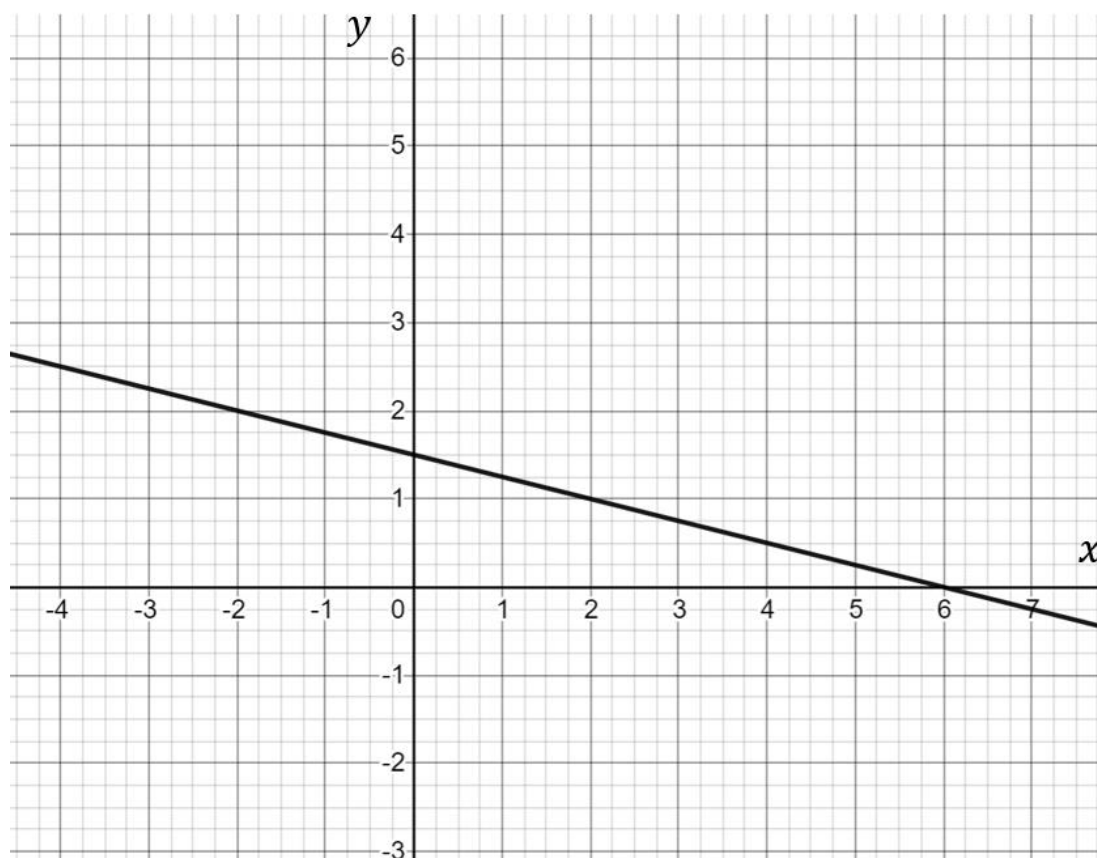


Answer: \_\_\_\_\_

(1 mark)



Q2. a) Find the gradient of the line:



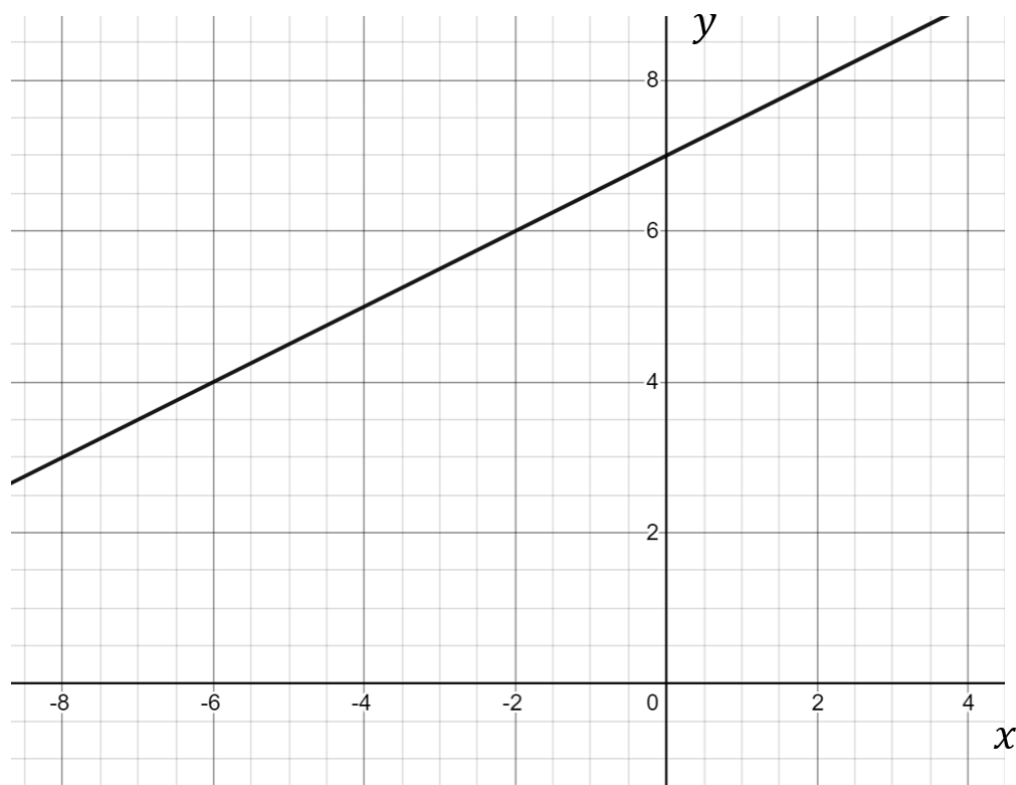
Answer: \_\_\_\_\_  
(1 mark)

b) Is the point (18,-3) on the line? Justify your answer.

Answer: \_\_\_\_\_  
(2 marks)



Q3. a) Find the gradient of the line:



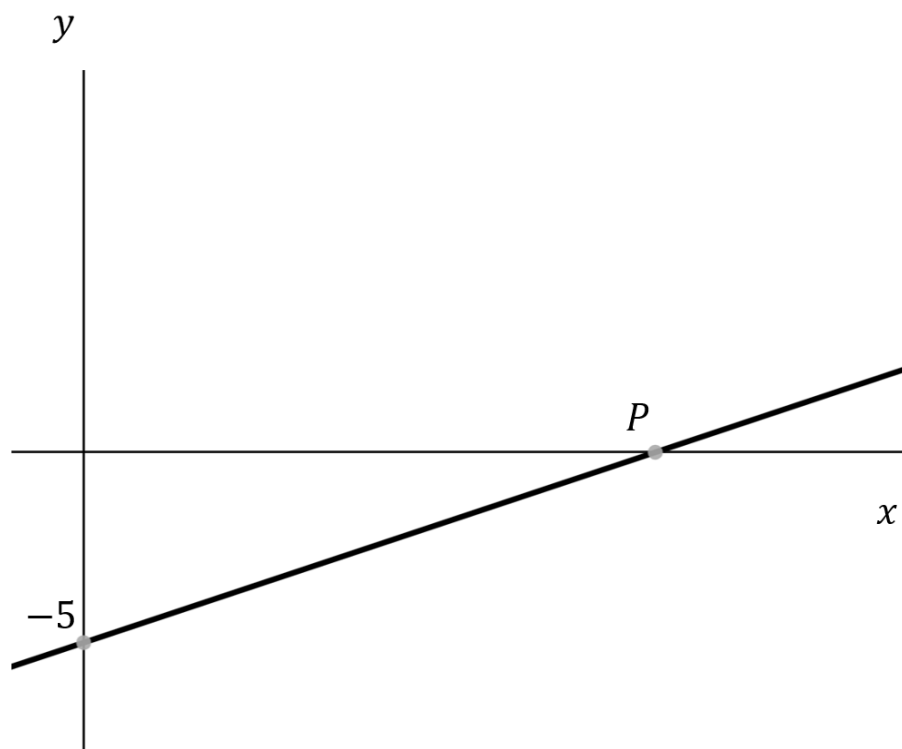
Answer: \_\_\_\_\_  
(1 mark)

b) Is the point (10,14) on the line? Justify your answer.

Answer: \_\_\_\_\_  
(2 marks)



Q4. The gradient of the line shown below is  $\frac{1}{3}$ . Work out the co-ordinates of the point P.



Answer: \_\_\_\_\_  
(2 marks)



Q5. Work out the gradient of the line segment which has end-points A and B where  $A = (2, 5)$  and  $B = (6, -3)$

Answer: \_\_\_\_\_  
(2 marks)

Q6. A line passes through the points  $A = (-7, 2)$  and  $B = (8, -4)$ . Work out the gradient of the line, giving your answer as a simplified fraction.

Answer: \_\_\_\_\_  
(2 marks)



Q7. The line CD passes through the points  $C = (-3, 4)$  and  $D = (k, 12)$ .  
The gradient of CD is 4. Work out the value of k.

Answer: \_\_\_\_\_  
(2 marks)

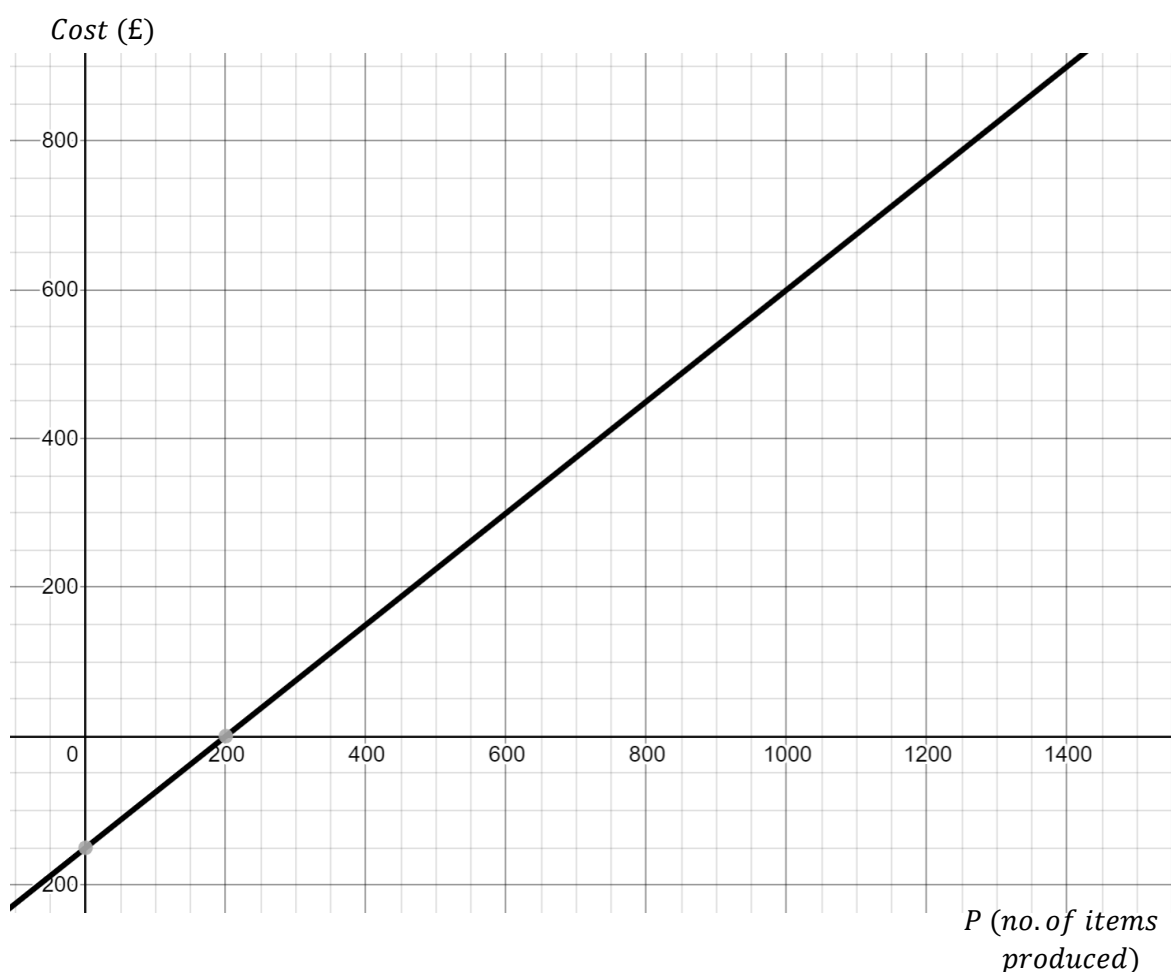
Q8. The line AB passes through the points  $A(k, -9)$  and  $(4, 12)$ . The  
gradient of AB is  $-\frac{2}{3}$ . Work out the value of k.

Answer: \_\_\_\_\_  
(2 marks)



### Problem Questions:

Q9. The line is a model of the cost to produce different number of items at a factory.



a) Work out the gradient of the line.

Answer: \_\_\_\_\_  
(1 mark)

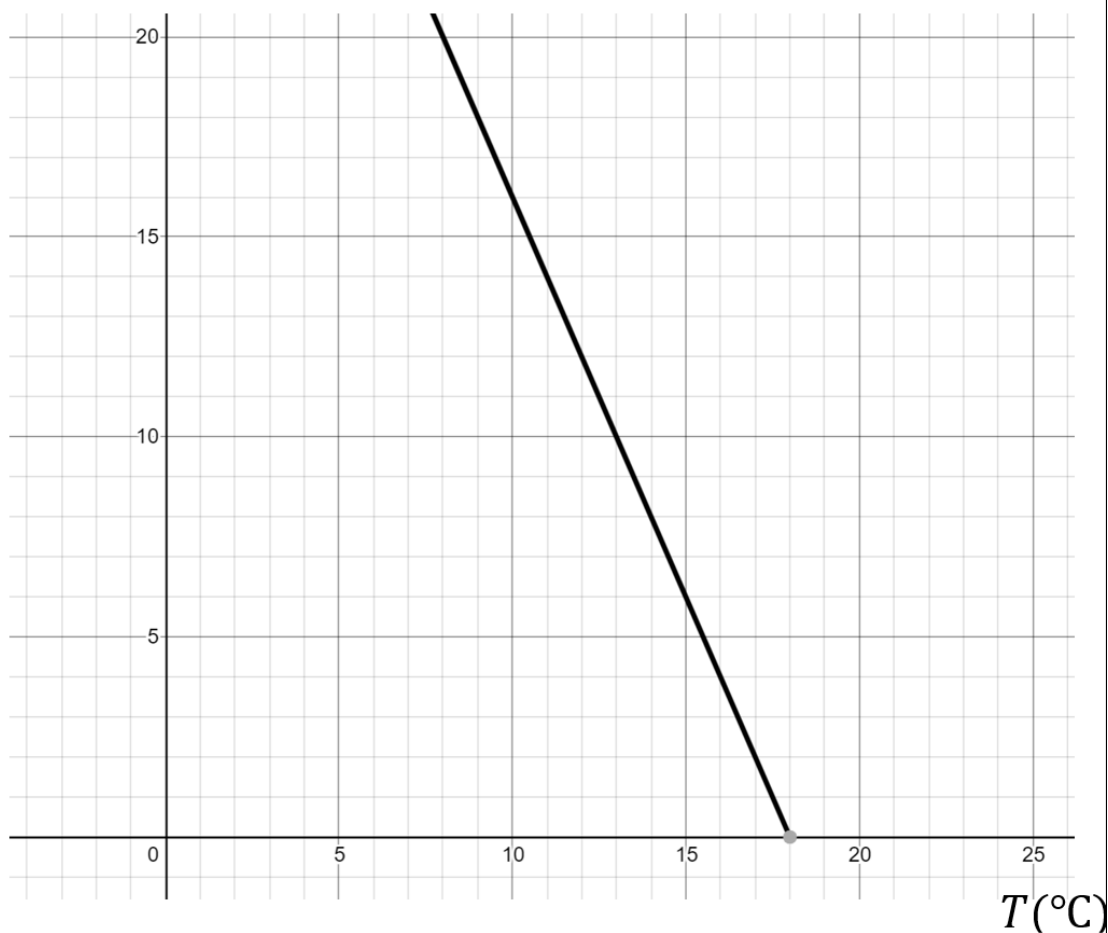
b) Interpret your answer to part (a) in the context of the model.

Answer: \_\_\_\_\_  
(1 mark)



Q10. The line is a model of the sales  $W$  of wool hats (in 1000's) at various temperatures  $T$  ( $^{\circ}\text{C}$ ).

$W$  hats (1000's)



a) Work out the gradient of the line.

Answer: \_\_\_\_\_  
(1 mark)

b) Interpret your answer to part (a) in the context of the model.

Answer: \_\_\_\_\_  
(1 mark)