SCORE

Algebra
With Classified
answer book

8
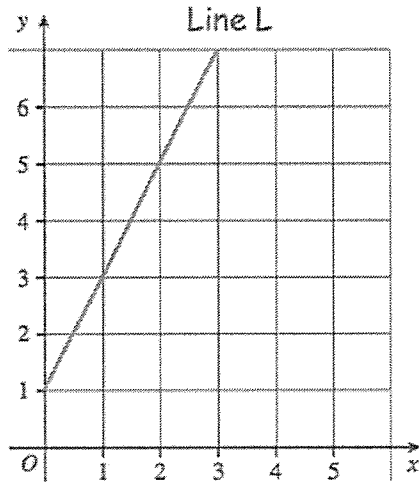
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14- Gradient

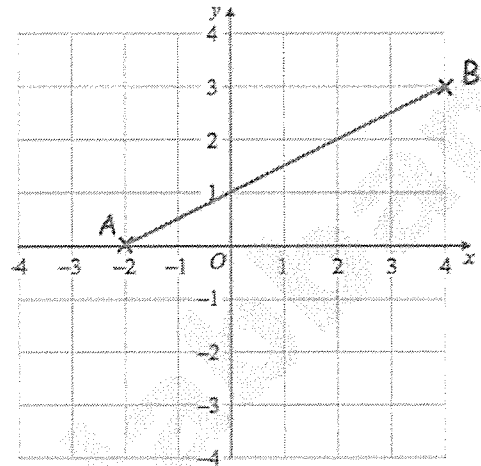1. a) Line L is drawn on the grid.
   Work out the gradient of Line L.

Line L

....

b) AB is drawn on the grid.
   Work out the gradient of AB.

....

2. A is the point with coordinates (−1, −4)
   C is the point with coordinates (2, 5)
   Find the gradient of the AC

....

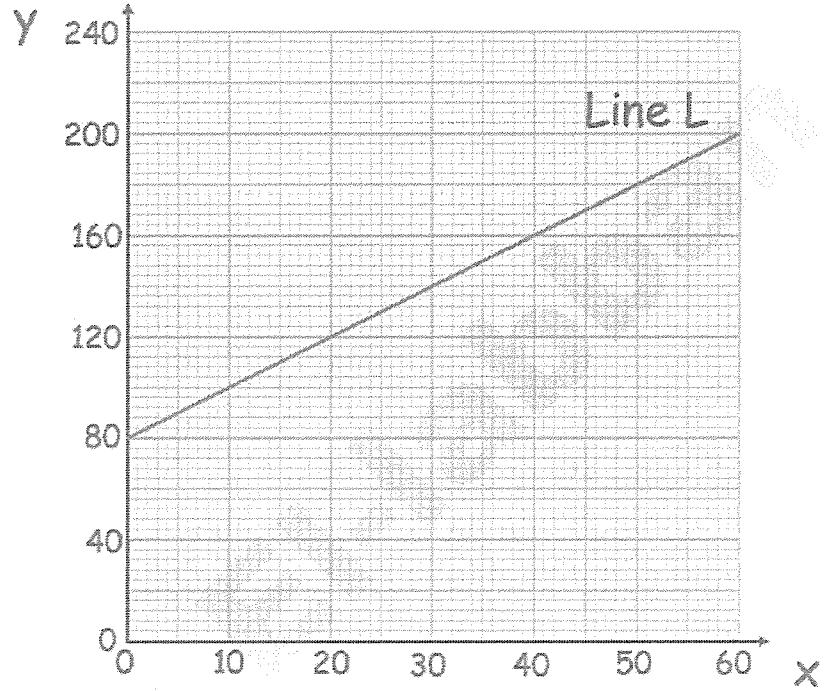3. A is the point with coordinates (1, 4).
   B is the point with coordinates (7, 22).

   Find the gradient of AB in its simplest form.

....

4. Line L is drawn on the grid.

Work out the gradient of Line L.

....

5. The line joining $(2, -1)$ and $(k, 1)$ has a gradient $\frac{2}{3}$.

Work out the value of k

15- Identify Gradient and Y-intercept of Straight Line

1. The line $y = 4x + 2$ on the grid .

   Gradient =.....

   y-intercept =.....

2. The line $2y + x = 20$ on the grid .

   Gradient =.....

   y-intercept =.....

3. Write the gradient m

   a) $y = 10x + 20$ Gradient =.....

   y-intercept =.....

   b) $y = 10 - 20x$ Gradient =.....

   y-intercept =.....

   c) $y = -2.5 - 0.5x$ Gradient =.....

   y-intercept =.....

4. Write down the gradient of each line.

   a) $2▢ + 0.5 = ▢$ Gradient =.....

   y-intercept =.....

   b) $▢ = \dfrac{▢}{2} + \dfrac{1}{4}$ Gradient =.....

   y-intercept =.....

5. Write the gradient and y-intercept of each line.

a) $y = 12$

b) $x = -45$

m= ....

m= ....

C= ....

6. Rearrange the equation $y - 4x + 2 = 10$ to make y the subject.

Write the gradient and the y-intercept of a graph

m= ....

C= ....

7. Rearrange the equation $3x + y = 15$. to make y the subject.

Write the gradient and the y-intercept of a graph

m= ....

C= ....

8. Here is a function: $x + y = 15$

Write the gradient and the y-intercept of the graph of $x + y = 15$.

m= ....

C= ....

9. Rearrange the equation 3x + 4y = 24. to make y the subject.

Write the gradient and the y-intercept.

m= ....

C= ....

Find where the line crosses the x-axis

....

10. Write the gradient and the y-intercept of a graph

a) i) $6x + 3y = 18$

m= ....

C= ....

ii) Find where the line cross Y-axis

....

b) i) $3x + 2y = 18$

m= ....

C= ....

ii) Find where the line cross Y- axis

....

11. (a) Here are the equations of some straight line graphs.

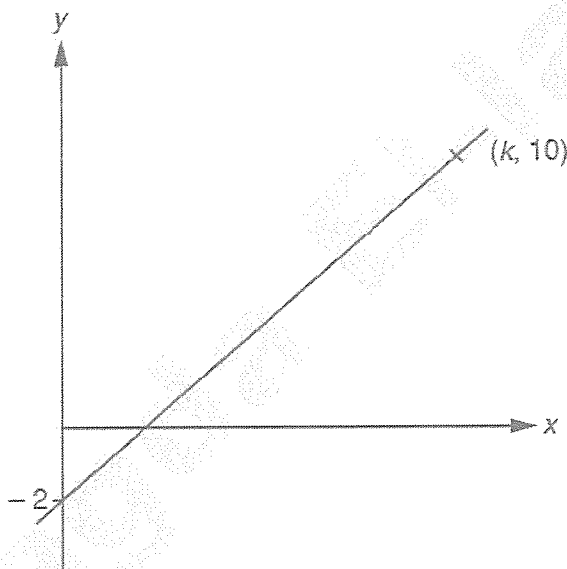$y = x \div 2$ $y = 2x - 3$ $2y = x - 3$ $x = 2$

Draw a ring around the graph with gradient 2

(b). The diagram shows the graph of $y = 3x + c$, where c is a constant.

Find the value of k.

$k =$ _____