The Gradient of a Line

Instructions

• Use black ink or ball-point pen.
• Answer all questions.
• Answer the questions in the spaces provided – there may be more space than you need.
• Diagrams are NOT accurately drawn, unless otherwise indicated.
• You must show all your working out.

Information

• The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.

Advice

• Read each question carefully before you start to answer it.
• Keep an eye on the time.
• Try to answer every question.
• Check your answers if you have time at the end
1. The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 1 is 1 mark)

2. The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 2 is 1 mark)
3. The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 3 is 1 mark)

4. The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 4 is 1 mark)
5 The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 5 is 1 mark)

6 The line $L$ is drawn on the grid below.

Find the gradient of the line $L$.

(Total for question 6 is 1 mark)
7. Find the gradient of the line that passes through (2, 1) and (5, 10).

8. Find the gradient of the line that passes through (5, 4) and (7, 0).

9. Find the gradient of the line that passes through (-3, 4) and (5, 8).
10 Find the gradient of the line that passes through (3, 7) and (1, 10).

11 Find the gradient of the line that passes through (1, -1) and (-3, -9).

12 Find the gradient of the line that passes through (8, 1) and (3, -3).
13 Find the gradient of the line that passes through (3, -1) and (-2, 9).

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(Total for question 13 is 2 marks)

14 Find the gradient of the line that passes through (-1, -2) and (-3, 10).

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(Total for question 14 is 2 marks)

15 Find the gradient of the line that passes through (-3, 4) and (-5, 7).

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(Total for question 15 is 2 marks)
16 The line $AB$ passes through the points $A(2, -1)$ and $(6, k)$.

The gradient of $AB$ is 5.

Work out the value of $k$.

17 The line $AB$ passes through the points $A(-3, 4)$ and $(k, 12)$.

The gradient of $AB$ is 4.

Work out the value of $k$.

18 The line $AB$ passes through the points $A(-2, k)$ and $(4, 8)$.

The gradient of $AB$ is -2.

Work out the value of $k$. 

$k = \underline{\hspace{1cm}}$  

(Total for question 16 is 3 marks)

$k = \underline{\hspace{1cm}}$  

(Total for question 17 is 3 marks)

$k = \underline{\hspace{1cm}}$  

(Total for question 18 is 3 marks)