

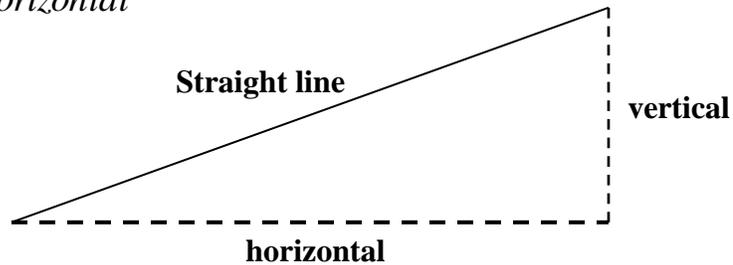
Gradients - A measure of steepness

Worksheet Edited By Mr R. Milton

The diagram shows a straight line with the vertical/horizontal distances marked on it.

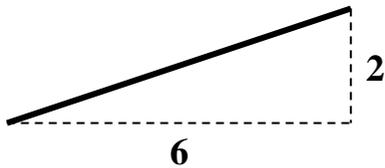
The definition of the gradient of a straight line is given by

$$m = \text{gradient} = \frac{\text{vertical}}{\text{horizontal}}$$



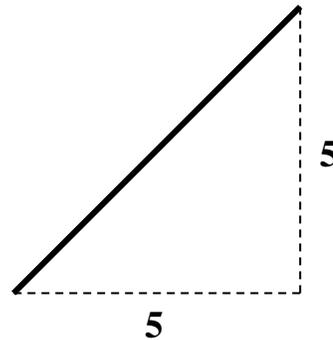
Calculate the gradient of each line shown.

1.



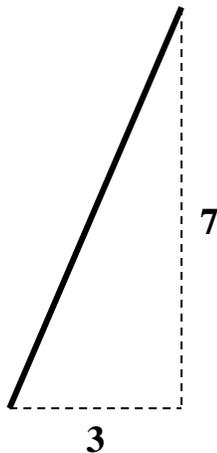
$m =$

2.



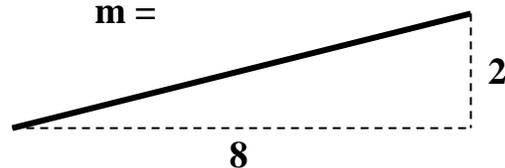
$m =$

3.



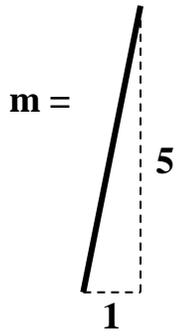
$m =$

4.

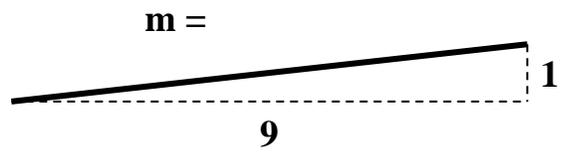


$m =$

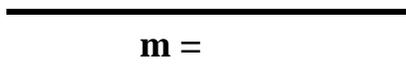
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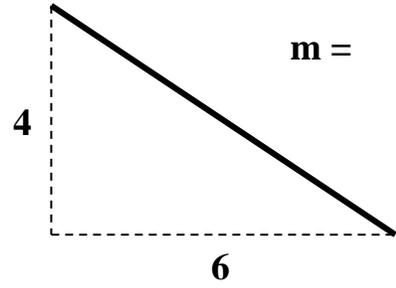
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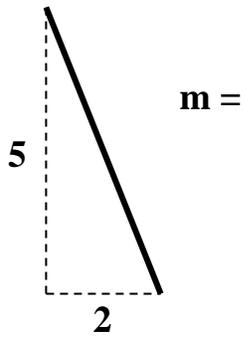
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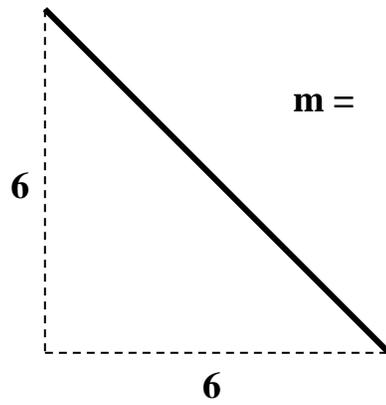
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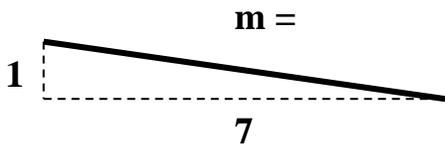
9.



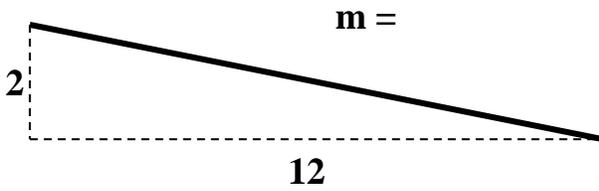
10.



11.



13.

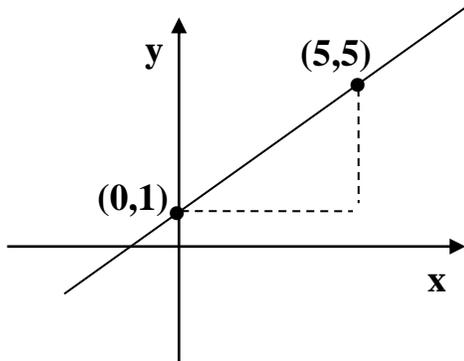


Making a triangle to find the Gradient

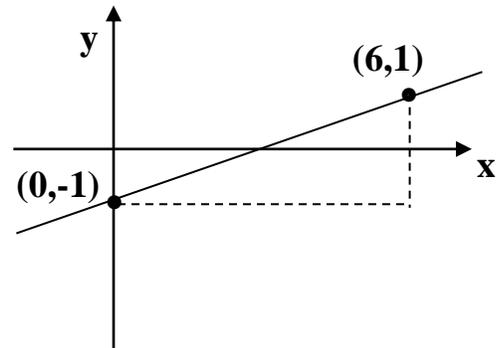
In each example make a small triangle like that shown in example 1, work out the vertical and the horizontal distances, then calculate the gradient of the line using

$$m = \frac{\text{vertical}}{\text{horizontal}}$$

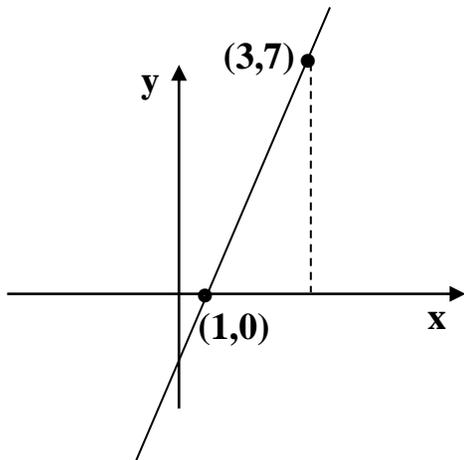
1.



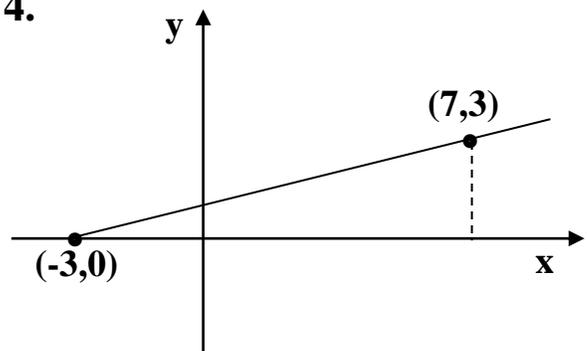
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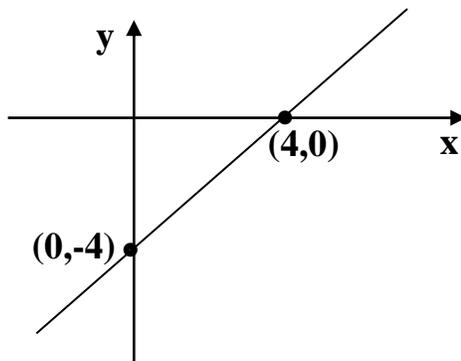
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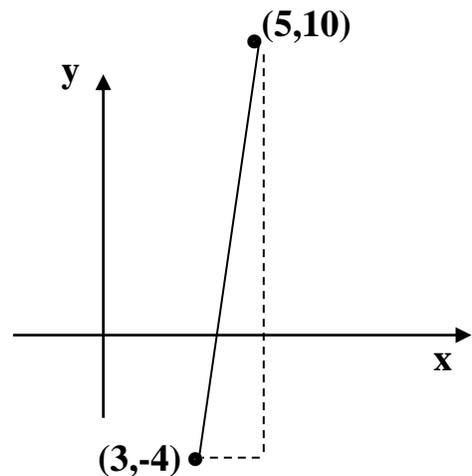
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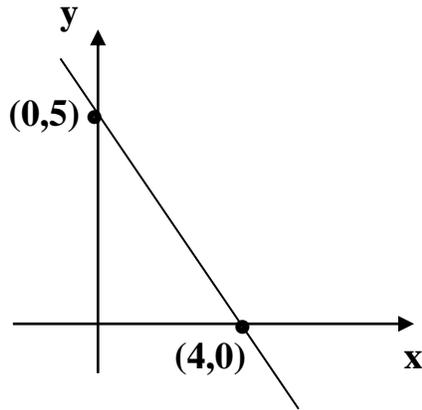
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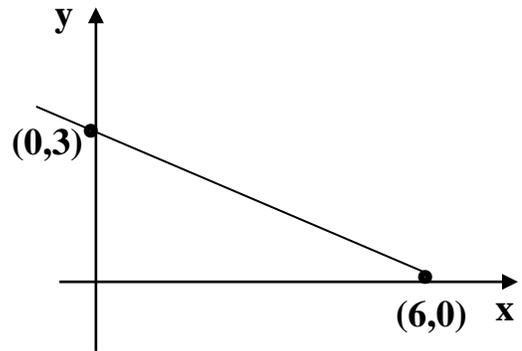
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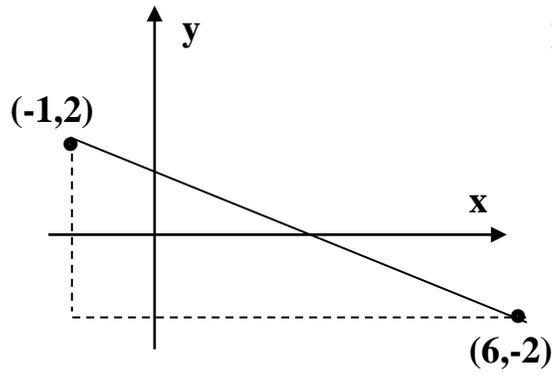
7.



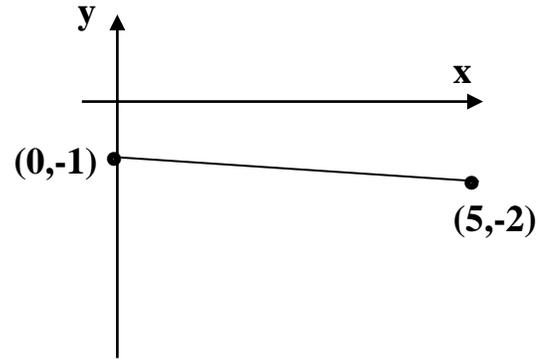
8.



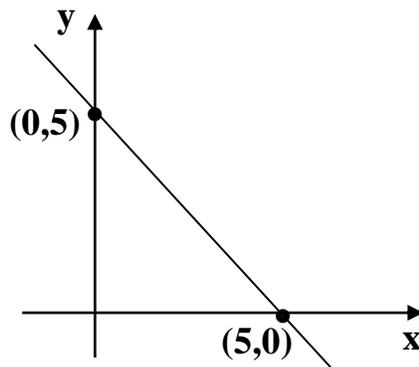
9.



10.



11.



12.

