

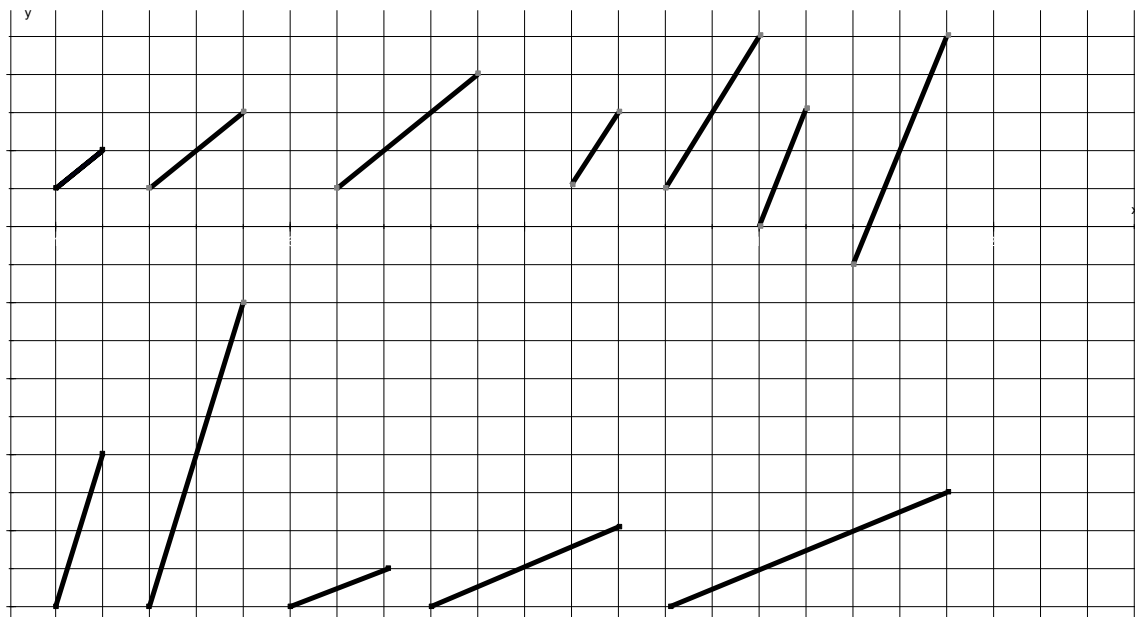
Learning Objective: To explore and develop an understanding of how we measure gradient

For each of the line segments below: work out the rise and tread.

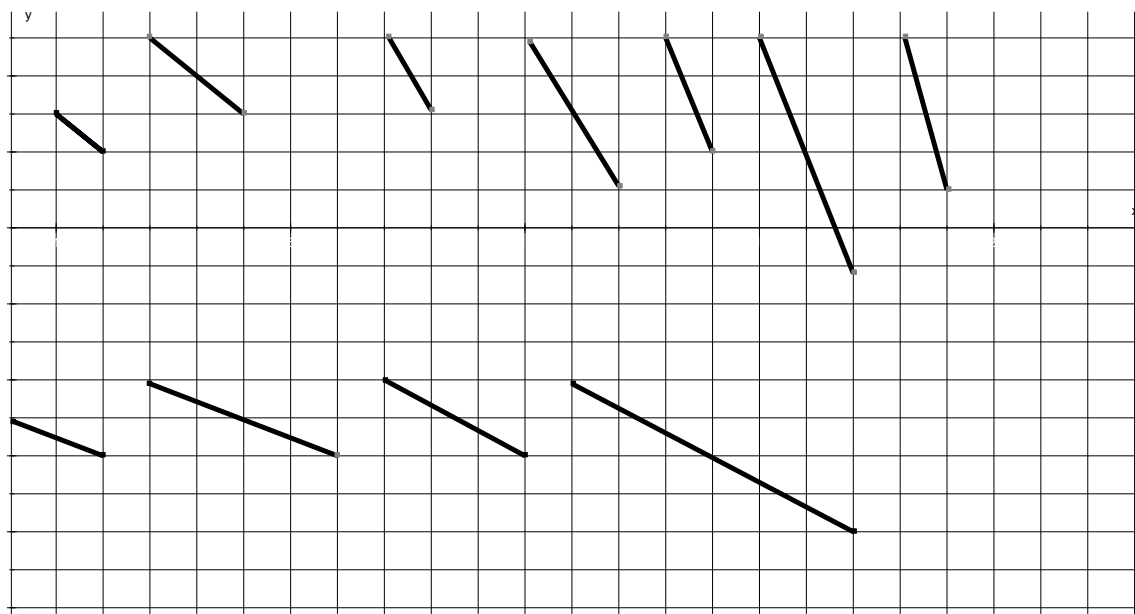
Create a table with the following headings and complete with the information for each of the lines

Line	Rise	Tread	$\frac{\text{rise}}{\text{tread}}$	$\frac{\text{rise}}{\text{tread}}$ cancelled down
1 st	1	1	$\frac{1}{1}$	1

Positive Gradients



Negative Gradients (rise is negative)



Learning: Objective 1: To find the gradient between a pair of Coordinates

Learning Objective 2: To use Pythagoras to find the length of the line segment

By plotting the following pairs of coordinates, find the gradient of the line segment joining them

$(0,3)$ and $(1,5)$	$(5,2)$ and $(7,9)$	$(3,2)$ and $(7,5)$	$(-2,1)$ and $(1,5)$
$(-3,-2)$ and $(1,7)$	$(5,7)$ and $(6,3)$	$(3,6)$ and $(5,-1)$	$(3,5)$ and $(5,6.5)$

Now, use Pythagoras to find the length of the line segments

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Extended learning Objective: Perpendicular gradients

For each of the following pairs of perpendicular line segments complete the table below

What do you observe about the pairs of gradients

Pair	Gradient of 1 st line	Gradient of 2 nd line
1 st	$\frac{-2}{1}$	$\frac{1}{2}$
2 nd		
3 rd		
4 th		
5 th		

Remember that:

$$\text{Gradient} = \frac{\text{rise}}{\text{tread}}$$

