

## Warm up

$$3x + x + x + x - 3 - 2 = 7 + x + x$$

In the equation above, what is the value of  $x$ ?

A)  $-\frac{5}{7}$

B) 1

C)  $\frac{12}{7}$

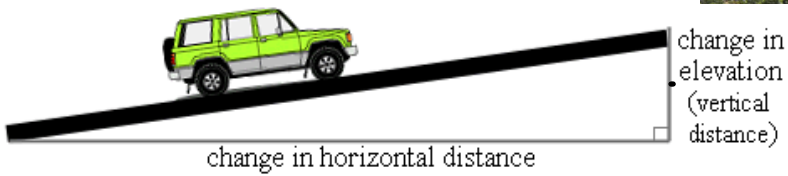
D) 3

$$\begin{array}{r} 6x - 5 = 2x + 7 \\ -2x \quad -2x \end{array}$$

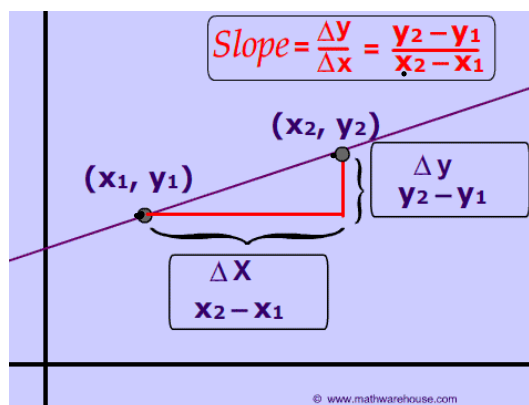
$$\begin{array}{r} 4x - 5 = 7 \\ +5 \\ 4x = 12 \\ x = 3 \end{array}$$

### Section 1.3 Slope

The grade of a road is a percent that measures the *steepness* of the road. It is found by dividing the amount the road rises by the corresponding horizontal distance.

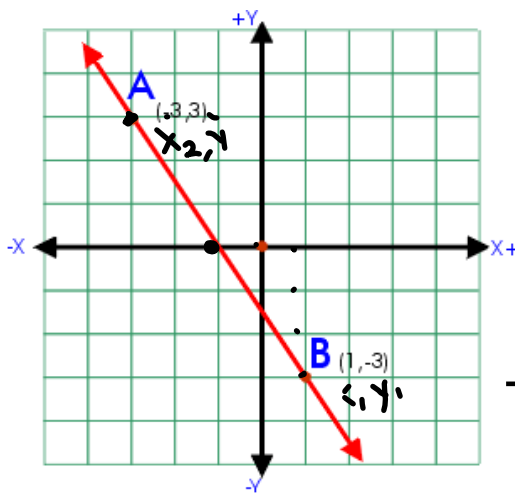


The *slope* of a line is the ratio of the change in y coordinate to the corresponding change in x coordinates.



Lines are either horizontal, vertical or Oblique.

Find the slope of the line



$$m = \frac{3 - (-3)}{-3 - 1} = \frac{6}{-4} = -\frac{3}{2}$$

This is an oblique line

Find the slope of the line that pass through point A(-1,4) and B(1,-2)

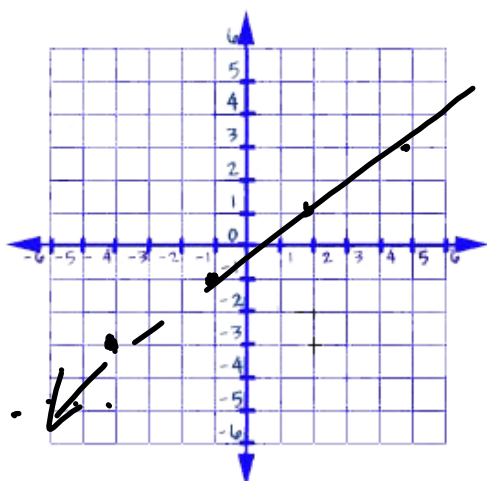
Is the line horizontal, vertical or oblique?

$$m = \frac{-2 - 4}{1 - (-1)} = \frac{-6}{2} = -\frac{3}{1}$$

Use the slope to graph a line.

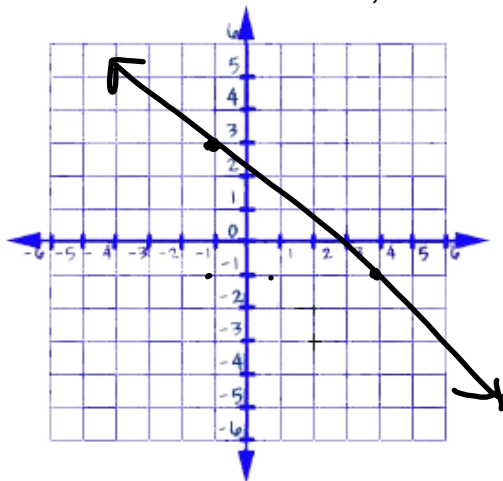
Graph the line passing through  $(-4, -3)$  with a slope of  $\frac{2}{3}$

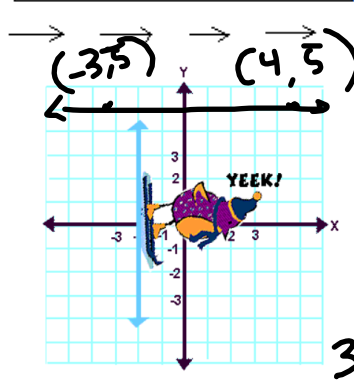
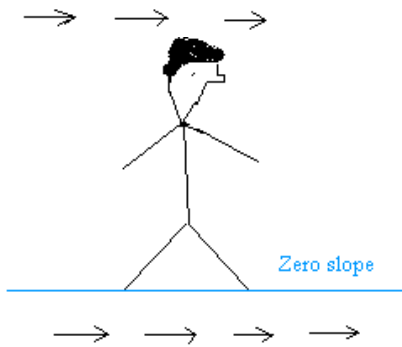
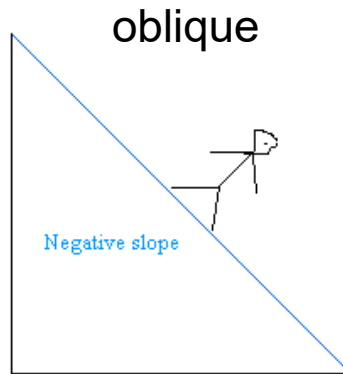
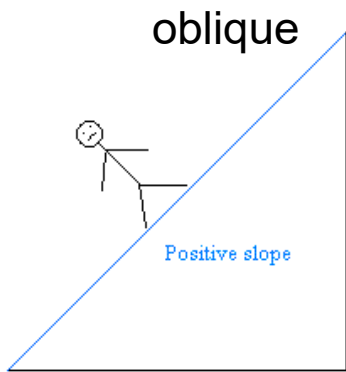
Is the line horizontal, vertical or oblique?



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Graph the line passing through  $(-1,3)$  with a slope of  $-\frac{4}{5}$   
 Is the line horizontal, vertical or oblique?





$$\frac{5-5}{-3-4} = \frac{0}{-7} = 0$$

Slope is  
Undefined

$$\frac{3-3}{-2--2} = \frac{0}{4} = 0$$

undefined

