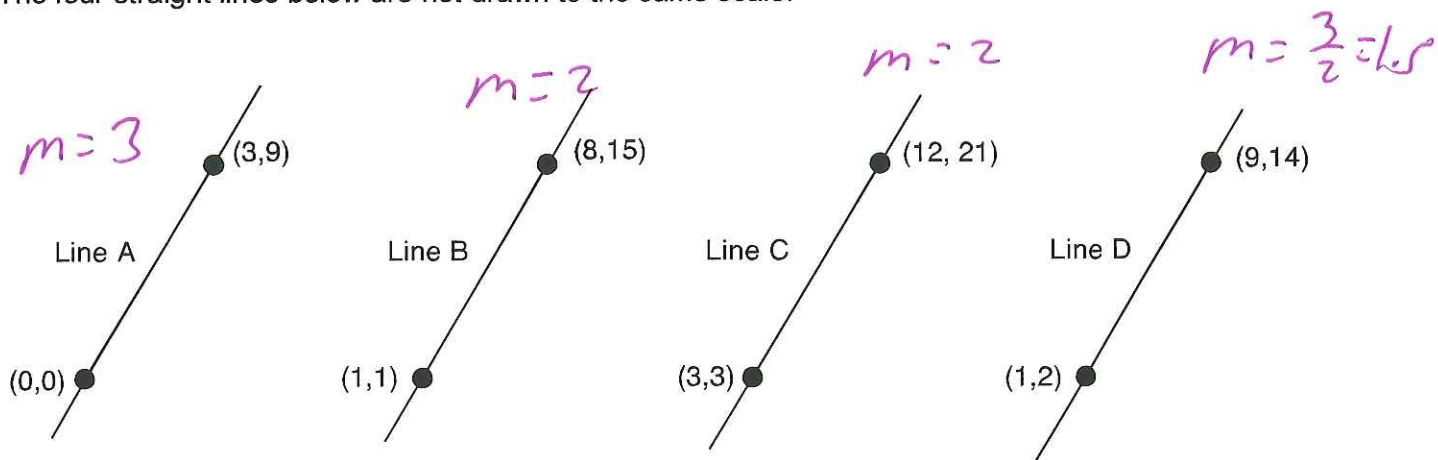


KEY

Lines, Slopes and Equations (revisited)

The four straight lines below are not drawn to the same scale.



1. Which line has the steepest slope? Explain how you can tell.

Line A: $m = \frac{9-0}{3-0} = \frac{9}{3} = 3$ When you use $m = \frac{y_2 - y_1}{x_2 - x_1}$ you will find that Line A has the steepest.

2. Which two lines are parallel? Explain how you can tell.

Line B & Line C both have the same slope of 2.

3. The point $(10, y)$ also lies on line A. What number does y stand for?

$y=30$ Line A has a y -intercept of zero and a slope of 3 therefore the equation should be $y=3x$ Put 10 in for $x \rightarrow y=3(10)=30$

4. The point $(x, 21)$ also lies on line B. What number does x stand for?

$x=11$ Line B has a slope of $m=2$ Find the y -intercept $1 = 2(1) + b \rightarrow$ equation is $y=2x-1$

5. Write down the equation of line C

Line C has $m=2$
 $1 = 2 + b$
 $-1 = b$

Find y -intercept.

$$3 = 2(3) + b$$

$$3 = 6 + b$$

$$-3 = b$$

Equation:

$$y = 2x - 3$$

Put 21 in for y and solve

$$21 = 2x - 1$$

$$22 = 2x$$

$$11 = x$$