

The ratio of boys to girls in a math class is 3:6.

1) Complete the table for the different amounts of boys and girls.

Boys	3	6	8	10	12
Girls	6	12	16	20	24

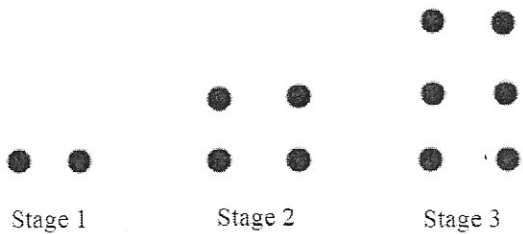
2) Determine the constant of proportionality from the table in question 1.

2 or $\frac{1}{2}$

Identify whether each representation is proportional or not. For each table/graph that is proportional, write the equation in $y = kx$ form. For each table/graph that is not proportional, explain why not.

3) $y = 4x + 3$	4) Jordan receives \$10 every time he walks his neighbor's dog. Is the total amount of money he earns proportional to the number of times he walks the dog?	5) <table border="1"> <tr><th>x</th><th>y</th></tr> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>8</td></tr> <tr><td>3</td><td>12</td></tr> <tr><td>4</td><td>16</td></tr> <tr><td>5</td><td>20</td></tr> </table>	x	y	1	4	2	8	3	12	4	16	5	20	6)
x	y														
1	4														
2	8														
3	12														
4	16														
5	20														
If yes, k = Equation:	If <u>yes</u> , k = 10 Equation: $y = 10x$	If <u>yes</u> , k = 4 Equation: $y = 4x$	If yes, k = Equation:												
If <u>no</u> , explain why It has an extra +3	If no, explain why	If no, explain why	If <u>no</u> explain why It isn't a straight line												

7) Write an equation for the following diagram:



Equation: $y = 2x$
or
 $y = \frac{1}{2}x$

Stage	dots
1	2
2	4
3	6

$k = 2$

Use the following graph to answer the questions.

8) What is the constant of proportionality and what does it represent in this context?

$$k = \frac{1}{3}$$

$\frac{1}{3}$ km per minute

9) What distance would you be at in 45 minutes?

$$45 \cdot \frac{1}{3} =$$

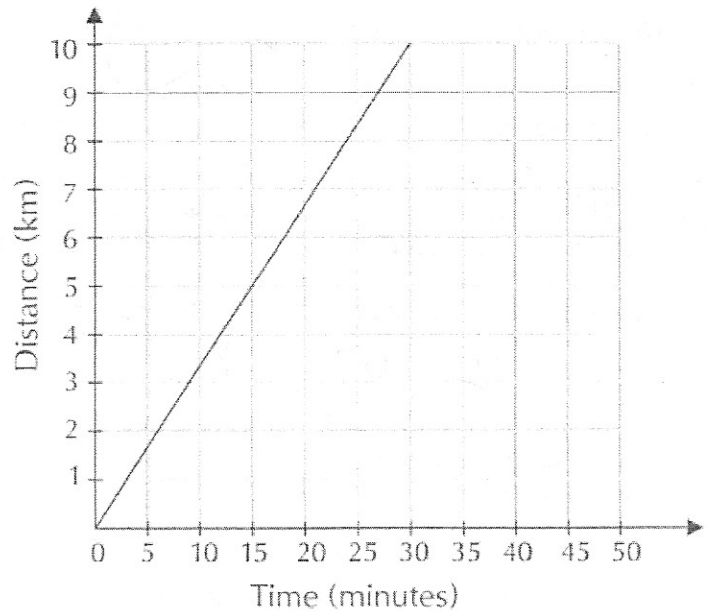
15 minutes

10) What does the point (15, 5) mean in the graph?

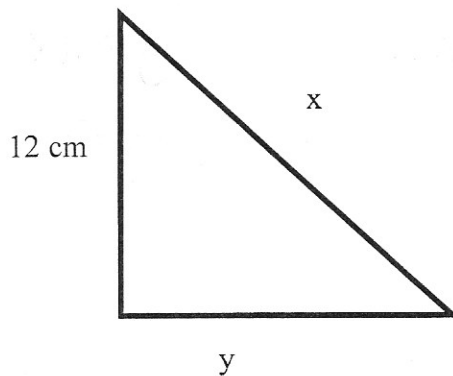
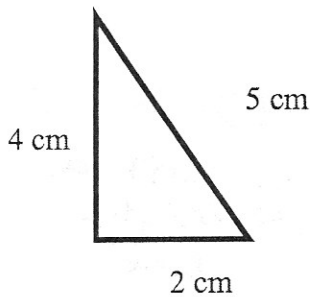
In 15 minutes, the distance traveled is 5 km

11) Write an equation for this relationship between distance, y , and the time, x .

$$y = \frac{1}{3}x$$



Use the proportional triangles below to answer the following questions



12) What is the length of side x ?

15 cm

13) What is the length of side y ?

6 cm