

John collects frogs and keeps them in a tank. He keeps track of water level with each frog added to the tank.



Finish the table

The number of frogs	water level
0	
1	26.9
2	27.2 cm
3	27.5 cm
4	27.8 cm
5	28.1
6	

2) what is the start value?

What is the rate of change?

What is the independent variable?

What is the dependent variable?

3) What is the linear equation?

4) what is the water level if there are 90 frogs?

5) How many frogs are there at a water level of 362.6 cm?

Finish the table

The number of frogs	water level
0	26.6
1	26.9
2	27.2 cm
3	27.5 cm
4	27.8 cm
5	28.1
6	28.4

start value
rate of change

2) what is the start value? 26.6 cm

What is the rate of change? .3 cm

What is the independent variable?

What is the dependent variable?

3) What is the linear equation? $y = .3x + 26.6$

4) what is the water level if there are 90

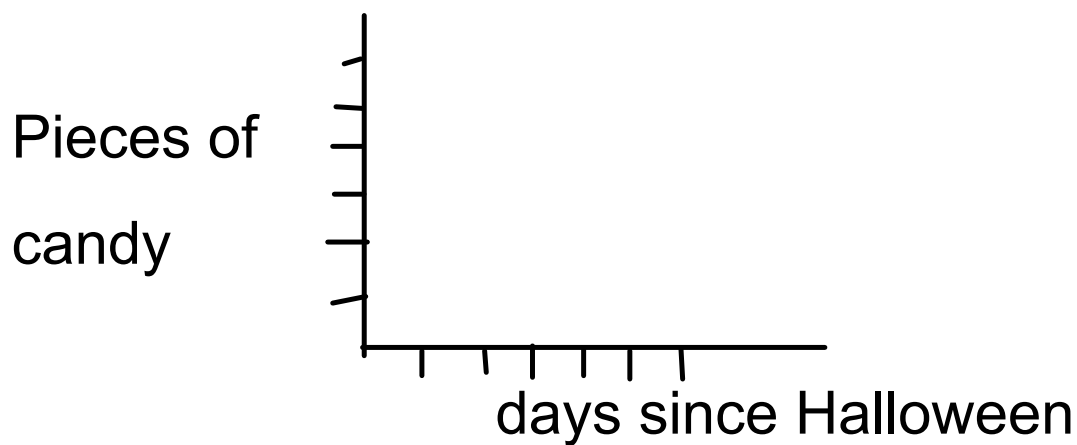
frogs? $y = .3(x) + 26.6$
 $y = .3(90) + 26.6$
 $y = 27 + 26.6$
 $y = 53.6$ cm
 The water level with 90 frogs is 53.6 cm

5) How many frogs are there at a water level of 362.6 cm?

$y = .3x + 26.6$
 $362.6 = .3x + 26.6$
 $-26.6 \quad -26.6$
 $336 = .3x$
 $\frac{336}{.3} = \frac{.3x}{.3} \quad x = 1120$

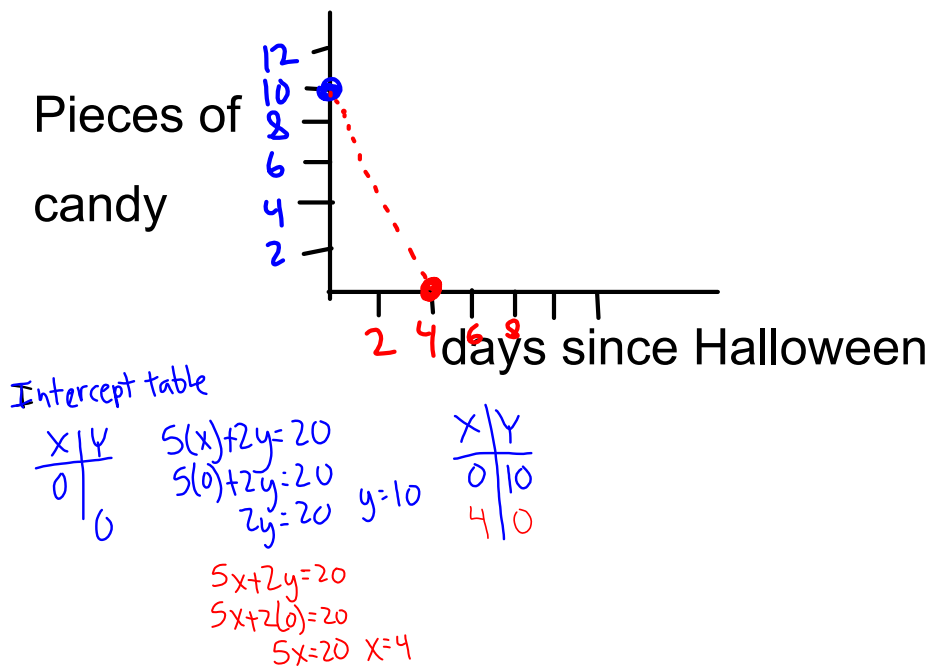
When water level is 362.6 cm there will be 1120 frogs.

Plot the equation $5x + 2y = 20$ on the graph



- 1) what do the intercepts mean?
- 2) what are the independent and dependent variables?
- 3) What is the slope and what does it describe?

Plot the equation $5x + 2y = 20$ on the graph



1) what do the intercepts mean?

The y intercept means that on Halloween the person had 10 pieces of candy, the x-intercept means that on 4 days after Halloween the person is out of candy.

2) what are the independent and dependent variables?

days since Halloween independent. The pieces of candy are the independent variable.

3) What is the slope and what does it describe?

Making a slope triangle using the line, the x-axis and the y-axis there are 10 pieces of candy eaten over 4 days, the slope is -2.5 pieces of candy per day.

If $r=3$ and $w=-4$ and $m=7$ evaluate the following.

$$1) \sqrt[3]{rm+6}$$

$$2) m|rw|$$

If $r=3$ and $w=-4$ and $m=7$ evaluate the following.

$$1) \sqrt[3]{rm+6}$$

$$\sqrt[3]{3(7)+6}$$

$$\sqrt[3]{27}$$

$$3$$

$$2) m|rw|$$

$$7|3(-4)|$$

$$7|-12|$$

$$7|12| = 7 \cdot 12 = 84$$