

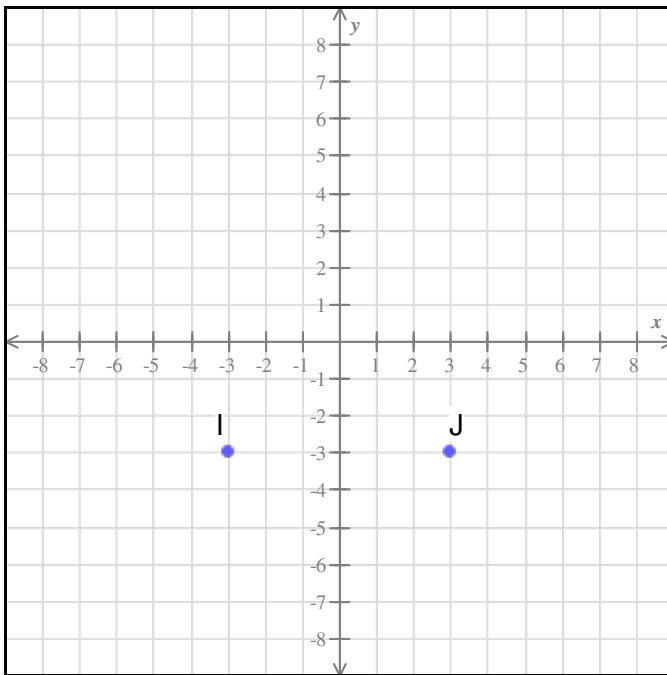
Class Name : **8A - A**

Instructor Name : **Ms. Ryan**

Student Name : _____

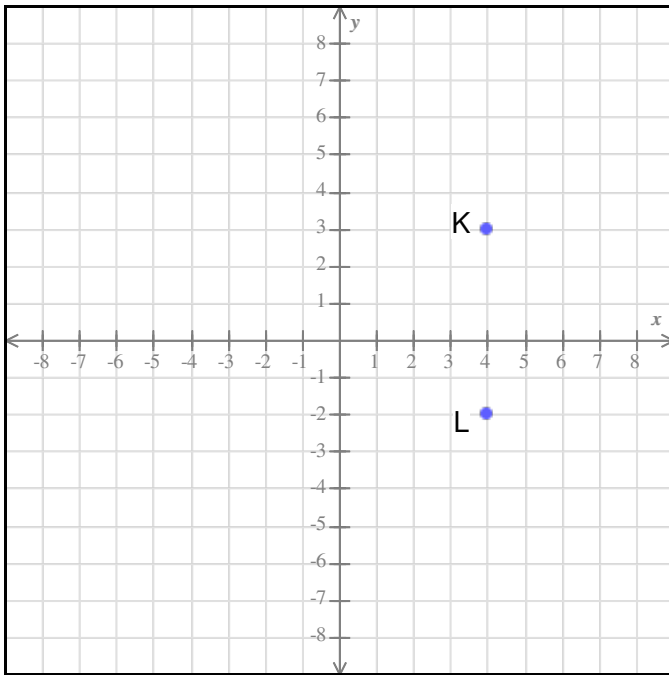
Instructor Note :

1. Find the distance between point *I* and point *J*.



Distance: _____

2. Find the distance between point K and point L .



Distance: _____

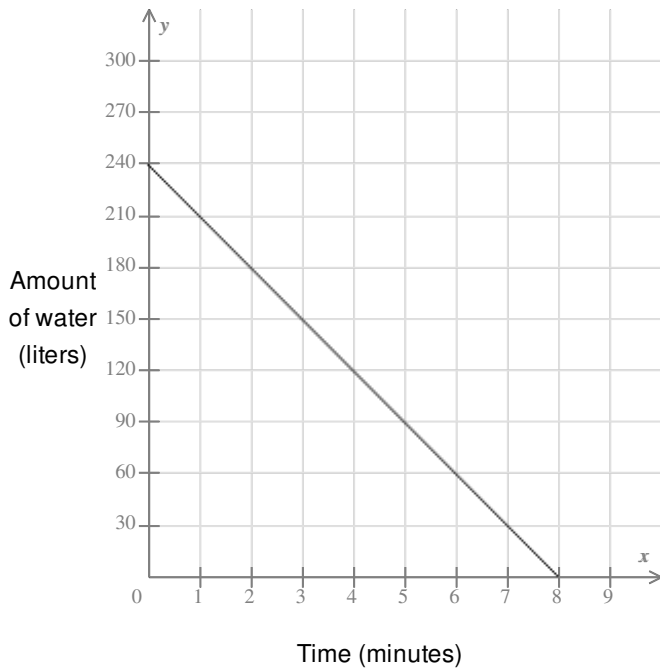
3. Find the distance between the points $(5, -3)$ and $(5, 6)$.

Distance: _____

4. Find the distance between the points $(-3, 6)$ and $(-6, 6)$.

Distance: _____

5. Debra is draining an aquarium. The graph shows the amount of water (in liters) in the aquarium versus time (in minutes).



(a) Choose the statement that best describes how the time and amount of water are related. Then fill in the blank.

- As time increases, the amount of water in the aquarium decreases.

At what rate is the amount of water decreasing?

_____ liters per minute

- As time increases, the amount of water in the aquarium increases.

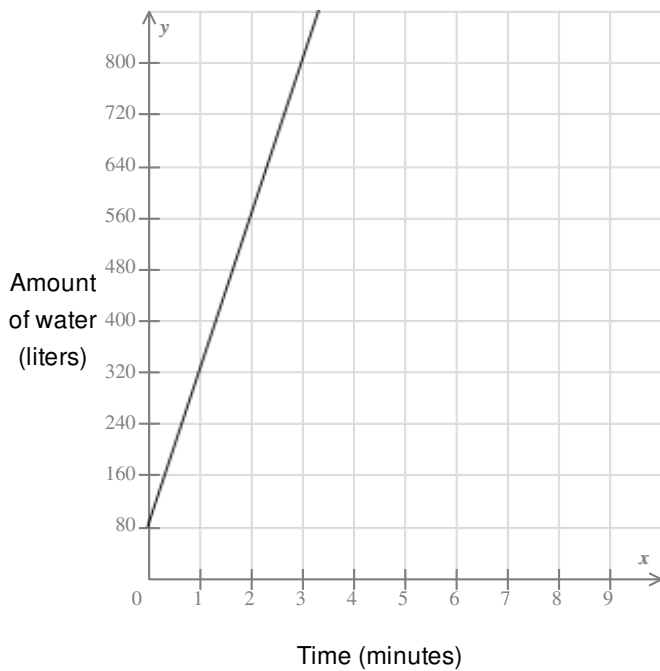
At what rate is the amount of water increasing?

_____ liters per minute

(b) At what time does the amount of water in the aquarium reach 0 liters?

_____ minutes

6. Reuben is filling a tank. The graph shows the amount of water (in liters) in the tank versus time (in minutes).



(a) What is the amount of water in the tank at 0 minutes?

_____ liters

(b) Choose the statement that best describes how the time and amount of water are related. Then fill in the blank.

- As time increases, the amount of water in the tank decreases.

At what rate is the amount of water decreasing?

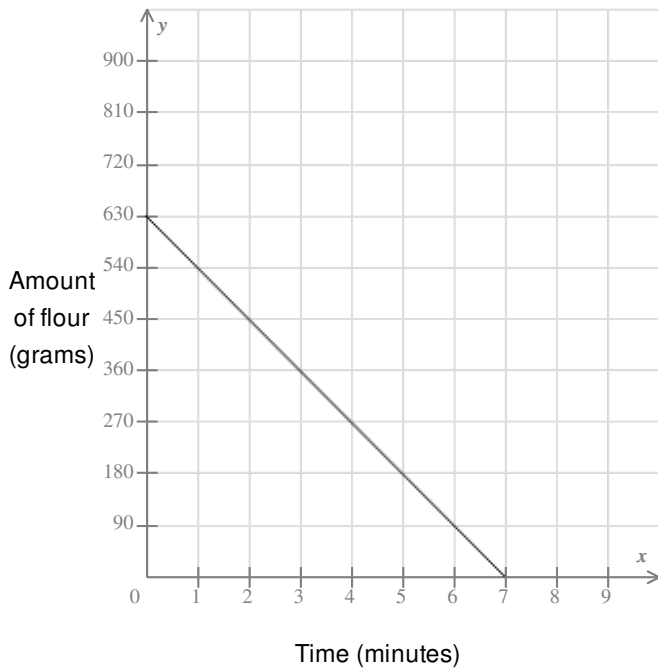
_____ liters per minute

- As time increases, the amount of water in the tank increases.

At what rate is the amount of water increasing?

_____ liters per minute

7. A machine at a bakery is pouring out flour. The graph shows the amount of flour (in grams) in the machine versus time (in minutes).



(a) Choose the statement that best describes how the time and amount of flour are related. Then fill in the blank.

- As time increases, the amount of flour in the machine decreases.

At what rate is the amount of flour decreasing?

_____ grams per minute

- As time increases, the amount of flour in the machine increases.

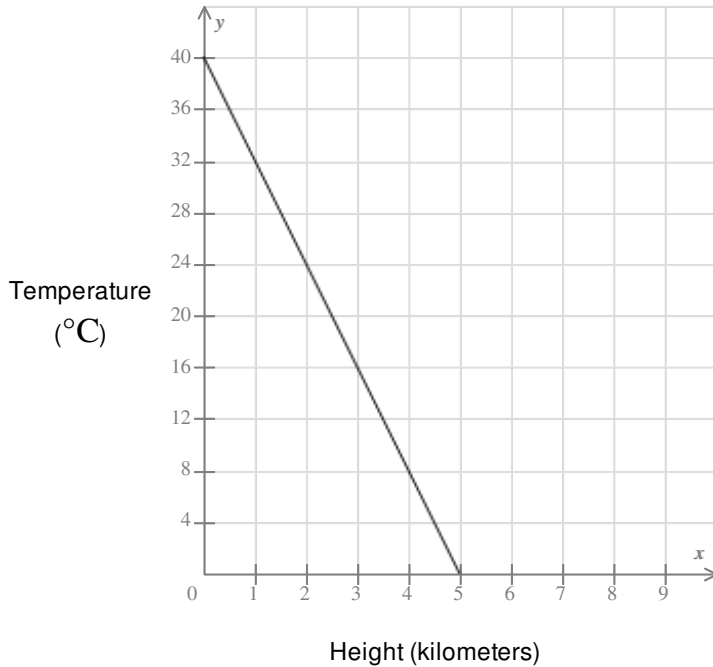
At what rate is the amount of flour increasing?

_____ grams per minute

(b) What is the amount of flour in the machine at 0 minutes?

_____ grams

8. Scientists are measuring a distant planet's temperature. The graph shows the temperature (in $^{\circ}\text{C}$) versus the height (in kilometers) above the planet's surface.



(a) At what height above the planet's surface is the temperature 0°C ?

_____ kilometers

(b) Choose the statement that best describes how the height and temperature are related. Then fill in the blank.

- As the height increases, the temperature decreases.

At what rate is the temperature decreasing?

_____ $^{\circ}\text{C}$ per kilometer

- As the height increases, the temperature increases.

At what rate is the temperature increasing?

_____ $^{\circ}\text{C}$ per kilometer

9. Heather deposits the same amount of money into a bank account every month. The table below shows the amount of money in the account after different amounts of time.

Time (months)	6	8	10	12
Money (dollars)	467	557	647	737

Answer the following questions.

(a) How much money was already in the account when Heather started depositing money?

_____ dollars

(b) Choose the statement that best describes how the time and amount of money in the account are related. Then give the value requested.

- As time increases, the amount of money in the account decreases.

At what rate is the amount of money in the account decreasing?

_____ dollars per month

- As time increases, the amount of money in the account increases.

At what rate is the amount of money in the account increasing?

_____ dollars per month

10. Ali is printing extra flyers to distribute. The flyers are printed at a constant rate. The table below shows the number of flyers he has after different amounts of time.

Time (minutes)	10	15	20	25
Flyers	98	133	168	203

Answer the following questions.

(a) Choose the statement that best describes how the time and number of flyers Ali has are related. Then give the value requested.

- As time increases, the number of flyers decreases.

At what rate is the number of flyers decreasing?

_____ flyers per minute

- As time increases, the number of flyers increases.

At what rate is the number of flyers increasing?

_____ flyers per minute

(b) How many flyers did Ali already have when he started printing?

_____ flyers

11. Chang stepped onto an escalator moving at a constant rate. The table below shows his distance from the first floor after different amounts of time.

Time (seconds)	6	9	12	15
Distance (centimeters)	1020	900	780	660

Answer the following questions.

(a) What was Chang's distance from the first floor when he stepped onto the escalator?

_____ centimeters

(b) Choose the statement that best describes how the time and his distance from the first floor are related. Then give the value requested.

- As time increases, his distance from the first floor decreases.

At what rate is his distance from the first floor decreasing?

_____ centimeters per second

- As time increases, his distance from the first floor increases.

At what rate is his distance from the first floor increasing?

_____ centimeters per second

12. At a factory, workers are draining a large vat containing water. The water is being drained at a constant rate. The table below shows the amount of water in the vat after different amounts of time.

Time (minutes)	15	20	25	30
Water (liters)	620	560	500	440

Answer the following questions.

(a) Choose the statement that best describes how the time and amount of water in the vat are related. Then give the value requested.

- As time increases, the amount of water in the vat decreases.

At what rate is the amount of water in the vat decreasing?

_____ liters per minute

- As time increases, the amount of water in the vat increases.

At what rate is the amount of water in the vat increasing?

_____ liters per minute

(b) How much water was in the vat when the workers started draining it?

_____ liters