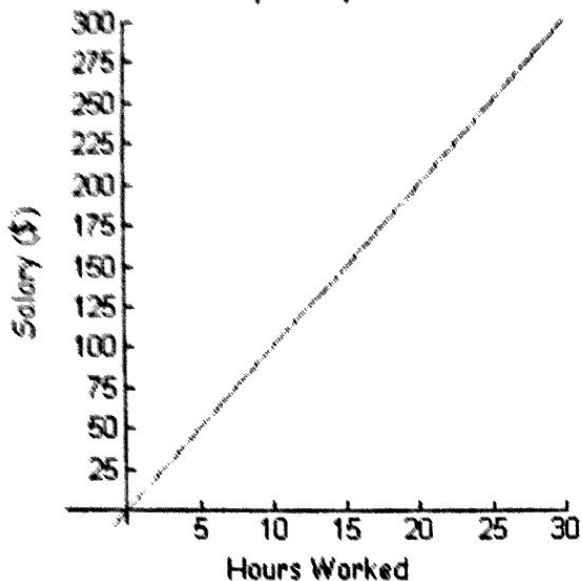


Graphs versus Equations

1. Pilar has two job offers and wants to take the job with the highest pay. The pay scale for company A is shown in the graph. The pay scale for Company B is given by the boxed equation where P is the pay, and h represents the number of hours worked.

Salary Comparison



$$P = 9h$$

1. Based on the graph, how much did Pilar make after working 15 hours? 20 hours?

Hours	Salary
15	
20	

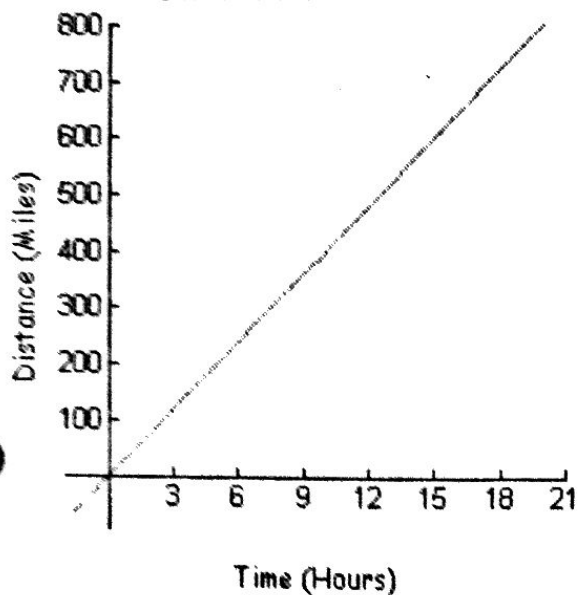
2. Can you use the table above to determine the constant of proportionality? What is the constant and how did you find it?

3. What is the equation that is represented by the graph?

4. Which company offers the highest pay, and what is the hourly rate for that company?

2. Kelsey recorded the speed of two storms by mapping how long they took to move certain distances. The speed of Storm A is shown in the graph. Storm B's speed is given by the boxed equation where D is the distance in miles, and h represents the time in hours.

Distance Versus Time



$$D = 25h$$

1. Can you find an ordered pair that goes through two whole number values?

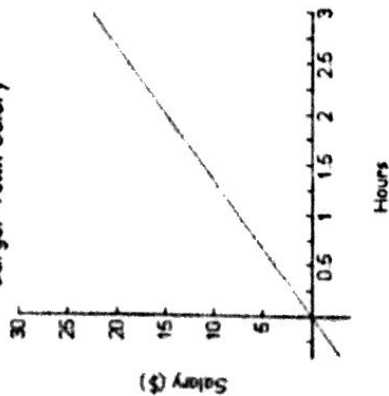
2. Use that point help you to determine the constant of proportionality. (What do you have to do to x to get to y ?)

3. What is the equation that is represented by the graph?

4. Which storm is moving faster? What is the speed of that storm in miles per hour?

3. POCO has two job offers at Burger Town and wants to take the job with the highest pay. The pay scale for cook is shown in the graph. The pay scale for taking customer orders is given by the boxed equation where P is the pay, and h represents the number of hours worked.

Burger Town Salary

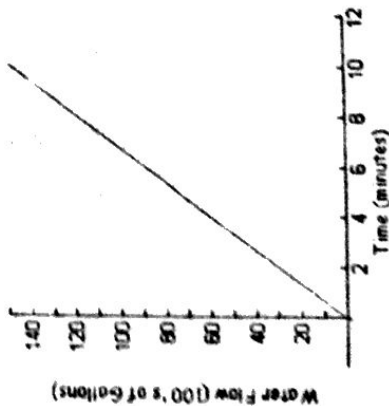


$$S = 8h$$

1. What is the equation that is represented by the graph? How do you know? Use complete sentences to prove how you determined your answer.
2. Which job offers the highest pay, and what is the hourly rate for that job?

4. Waterslides at WaterRapids Water Park pump different amounts of water through the slides. Slide of Terror is shown in the graph. The amount of water pumped through Waterfall Alley the boxed equation where W is the water pumped, and m represents the number of minutes.

Waterslide Waterfall

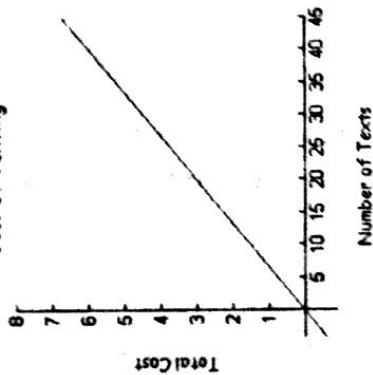


$$W = 2000m$$

1. How many gallons of water did Slide of Terror pump through after 6 minutes? How do you know?
2. What is the constant of proportionality?
3. What is the equation that is represented by the graph?
3. If you were afraid of fast rides, which waterslide would you enjoy more? What is the rate of water speed for that water slide?

5. Megan's parents are allowing her to get a cell phone, but she must pay for the text message plan. Text Plan A is shown in the graph. The text plan cost for Text Plan B is given by the boxed equation where C is the cost, and n represents the number of texts sent and received.

Cost of Texting



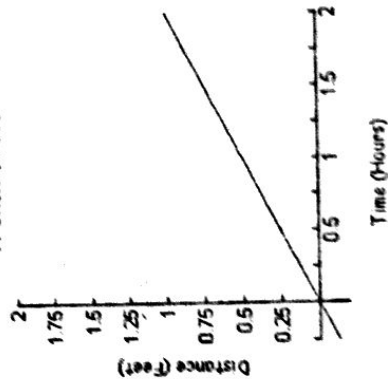
$$C = .20n$$

1. How much would Megan pay to send or receive 20 texts? What about 40 texts?
2. Can you use the table above to determine the constant of proportionality? What is the constant and how did you find it?
3. What is the equation that is represented by the graph?
4. Which text plan would Megan select to ensure that she is saving the most money? How much is she paying for each text sent or received?

Texts	Cost (\$)
20	
40	

6. For her science project, Georgia recorded the speed of two snails. Snail Bert is shown in the graph. The speed of Snail Ernie is given by the boxed equation where D is the distance, and h represents the hours elapsed.

A Snail's Pace



$$D = .75h$$

1. What is the equation that is represented by the graph? How do you know? Use complete sentences to prove how you determined your answer.
2. Which snail moves at a faster rate? What is the speed of each snail per hour?