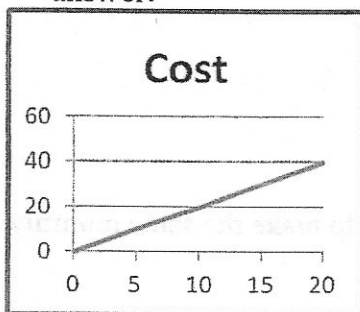


8E Quiz 1

### FORMATIVE ASSESSMENT: GAMERS

Gamers	Game World
Two dollars for every game download	\$15 per month and \$0.50 per game downloaded

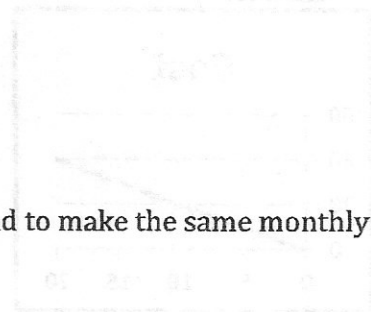
1. How much money would it cost if you downloaded 6 games from **Gamers**? Show your work, using the equation  $c=2d$ , where  $c$  is the cost and  $d$  is the number of downloads.
2. Write an equation for the cost per month at **Game World**, using  $c$  for cost and  $d$  for downloads.
3. Which equation is represented in the graph below, Gamers or Game World? Justify your answer.



4. If you plan on downloading 8 games per month, which would be the best plan to buy? Justify your answer using mathematical reasoning.

5. Justin has a membership to Gamers and he says his plan is better than Game World's. Kenny, who has a membership to Game World, disagrees. Who is correct? Justify your answer using mathematical reasoning.

6. How many games would Justin and Kenny have to download to make the same monthly payment? How do you know?

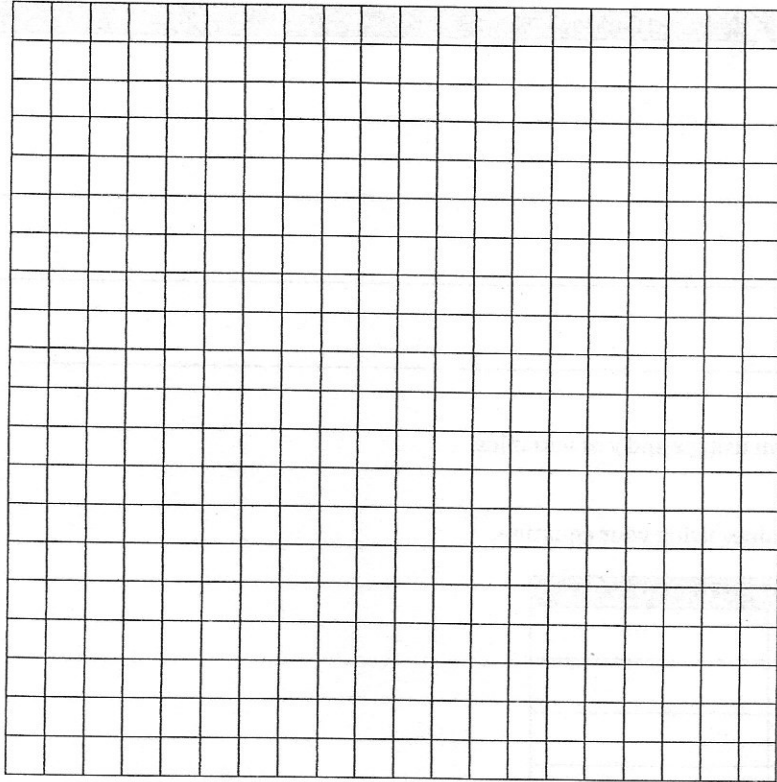


7. **Draining the Pool**

Summer is officially over. Not only are you back in school, but it's time to help clean out the swimming pool. Your first responsibility is to drain water from the pool.

- The pool holds 12,000 gallons of water
- The pool drains at a rate of 1,400 gallons per hour

a: Graph time in hours versus the amount of water left in the pool in gallons, and determine whether the relationship is proportional. Explain how you made your decision.



- b. Find the equation of the line and explain the meaning of the slope in this problem.
- c. Is this relationship proportional? Justify your answer using mathematical reasoning.
- d. Using the same grid above, graph the line of a 9,000 gallon tank that drains at the rate of 1,400 gallons per hour. Write the equation for the line.
- e. Compare the graphs and explain any similarities or differences you observe.

## SAMPLE MASTERY CHECK

### Interpreting the Equation of a Line (7.RP.2a, c, d; 8.EE.5)

Standard	Remarks
7.RP.2a, c, d	
8.EE.5	

- The equation of a line can be written as  $y = mx + b$ .

Explain what each letter in this equation stands for

Letter	What does it stand for?
$y$	
$m$	
$x$	
$b$	

- Write a linear equation using  $x$  and  $y$  as variables.
- Construct a table of values using your equation.

$x$	$y$

- How did the  $y$ -value change as the  $x$ -value increased by 1?

Why did this occur? What part of your equation represents that change?

- Describe what this relationship would look like if it were in graphical form.
- Is this a proportional relationship? Justify your answer using mathematical reasoning.