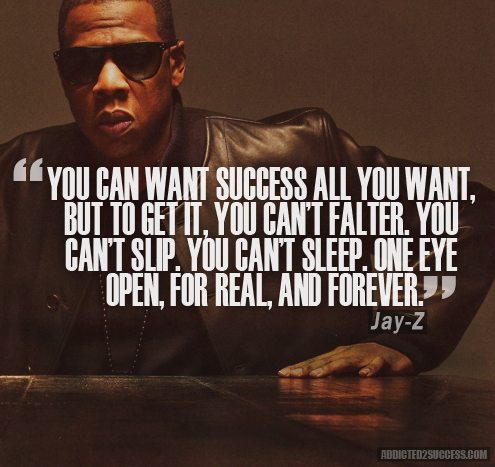
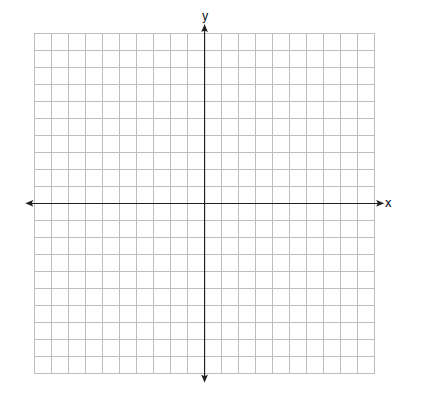
**Name: Period: Job 10 Arithmetic Sequences**

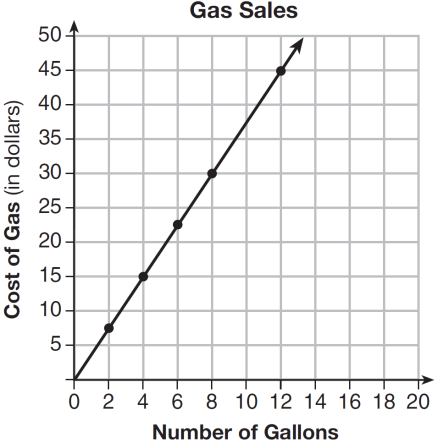
**Part 1: Textbook**

Textbook Lesson 3-4 Pages 116-117: 17, 19, 25, 27, 43, 47

**Part 2: Algebra Regents Questions –**



**1.** Solve for and graph:

**2.** The graph below was created by an employee at a gas station.

Which statement can be justified by using the graph?

(1) If 10 gallons of gas was purchased, $35 was paid.

(2) For every gallon of gas purchased, $3.75 was paid.

(3) For every 2 gallons of gas purchased, $5.00 was paid.

(4) If zero gallons of gas were purchased, zero miles were driven.

**3.** If and , then equals

(1) (3)

(2) (4)

**4.** The formula for the volume of a cone is . The radius of the cone may be expressed as

(1) (3)

(2) (4)

**5.** Solve the inequality below to determine and state the smallest possible value for *x* in the solution set.



**6.** A function is shown in the table below.

|  |  |
| --- | --- |
| x | f(x) |
| –4 | 2 |
| –1 | –4 |
| 0 | –2 |
| 3 | 16 |

If included in the table, which ordered pair, or , would result in a relation that is no longer a function? Explain your answer.

7. If , then

(1) (3)

(2) (4)