

Name .....

# Spiral Review 2

Directions: Show your work for each question for credit

1. Use the properties of exponents to simplify:

$$(5^3)^{10}$$

Show your work

- A)  $5^{13}$
- B)  $25^3$
- C)  $25^{30}$
- D)  $5^{30}$

2. Harold made a scale drawing of his town. He used the scale  $\frac{1}{4}$  inch = 1 mile.

The distance between the gas station and the grocery store in the drawing is 4 inches. What is the actual distance between the gas station and the grocery store?

Show your work

- A) 1 mile
- B) 12 miles
- C) 16 miles
- D) 20 miles

3. The following table lists the distance completed in a long-distance race for a given amount of time.

**Race Distance**

Time (in hours) (x)	Distance Completed (rounded to nearest mile) (y)
0.5	4
1.0	8
1.5	12

Which equation below represents the distance completed for a given amount of time?

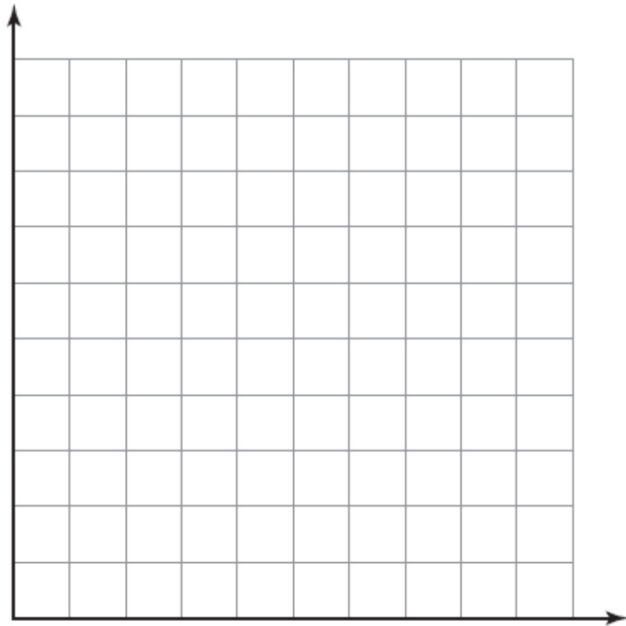
- A**  $x = y \div 4$       **B**  $y = 4x$       **C**  $x = 8y$       **D**  $y = 8x$



4. A pool is being filled with water. It already contains 100 gallons of water and it continues to be filled at a constant rate. Complete the table below to show the number of gallons of water in the pool after 3 minutes and after 4 minutes.

Time in Minutes ( $m$ )	Gallons of Water ( $g$ )
0	100
1	120
2	140
3	
4	

Plot the ordered pairs from the table onto the graph paper below. Then draw a line segment connecting the points.



How many gallons per minute are filling the pool ?

\_\_\_\_\_

5. The table below shows the number of chaperones,  $y$ , needed for a certain number of students,  $x$ , at a school dance.

#### SCHOOL DANCE

Number of Students ( $x$ )	32	48	64	96
Number of Chaperones ( $y$ )	4	6	8	12

Write an equation that represents the relationship between the number of chaperones needed and the number of students attending a dance.

**Equation** \_\_\_\_\_

How many chaperones will be needed for a dance that has 240 students?

**Answer** \_\_\_\_\_ chaperones