


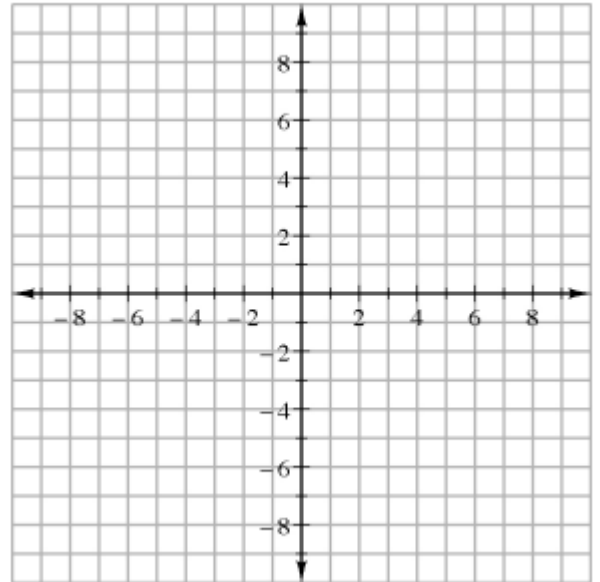
Pre-Algebra Problem Set 18

Name _____

Assigned Thursday 2/6, due Friday 2/14 

Period _____

1. Plot the following points, and connect them in order.
(0, 2), (8, 2), (8, -7), (-6, -7), (-6, -2), (0, -2), (0, 2).
Find the area of your shape, in square units.



2. Find the distance between each pair of points.

- a) (5, 3) and (5, 10)
- b) (-9, 2) and (-9, -8)
- c) (-1, 7) and (-7, 7)

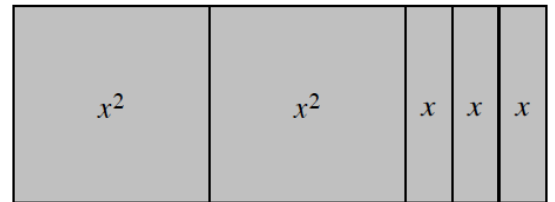
3. Make a portion web for each number:

- a) 1%
- b) $\frac{19}{25}$
- c) 0.9
- d) $\frac{1}{9}$

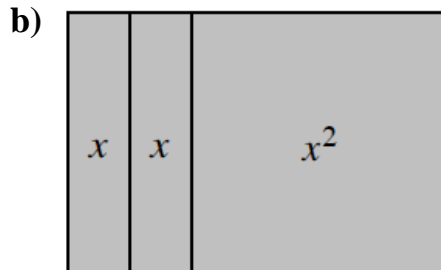
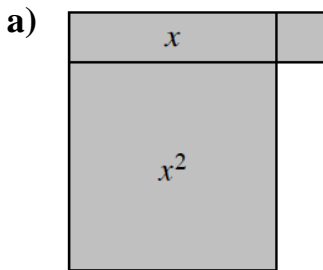
4. a) Find the area of this algebra tile arrangement.

b) Find the perimeter of this algebra tile arrangement.

c) If the algebra tiles were rearranged into a different shape, how would the area change?



5. Find the perimeter of each shape. Combine like terms.



6. Simplify each expression by collecting like terms.

- a) $x + 5 + 7x^2 + 4x$
- b) $4x^2 - 2x^2 + (-6) + 3$
- c) $2x - 6 - 3 + x$
- d) $(-2x) + 5 + 3x - 4x + (-1) + (-x)$

7. Name the mathematical property that justifies each equation.

a) $6(237) = 6(200) + 6(30) + 6(7)$

b) $15 + 5 + 32 - 2 = (15 + 5) + (32 - 2)$

c) $(45)(54) = (54)(45)$

d) $98 + 576 + 2 = 98 + 2 + 576$

8. Rainer bought 5 pounds of gummi worms at the store for \$4.90. What was the unit rate?

9. Simplify each expression. *Show your work.*

a) $3\frac{1}{3} \cdot \frac{1}{4}$

b) $5 \div 1\frac{3}{7}$

c) $1\frac{3}{7} \div 5$

d) $2\frac{1}{2} \cdot 1\frac{1}{3}$

10. Evaluate each expression when $a = -8$, $b = 7$, $x = 10$, and $y = -6$.

a) $b - x - y$

b) $|a - b| + |x - y|$

c) $-xy^2$

d) $y^3 - y^2$

11. Simplify each expression.

a) $7(x + 8)$

b) $7(2x - 3)$

c) $11(4 + y)$

12. Use the histogram to the right to answer the questions.

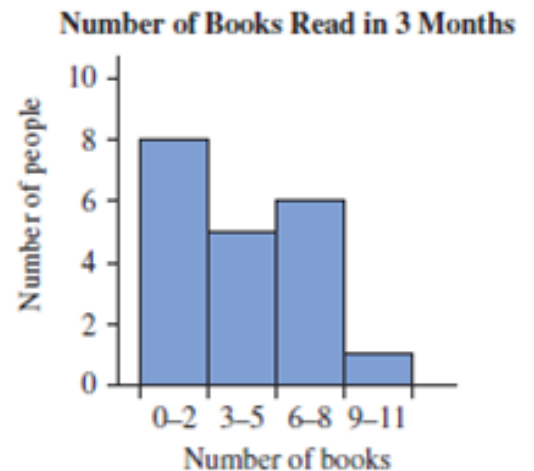
a) How many people read more 6 or more books?

b) How many people read less than 2 books?

c) How many people read exactly 5 books?

d) How many people were counted for this histogram?

e) What percent of people read 9-11 books?



13. Graph the data on the histogram below. Amount of time spent solving a math puzzle (minutes) by study teams: 3, 15, 18, 14, 10, 14, 19, 8, 14, 14, 15, 19, 9

