

Pre-Algebra Problem Set 17

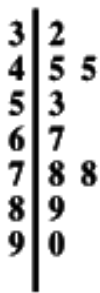
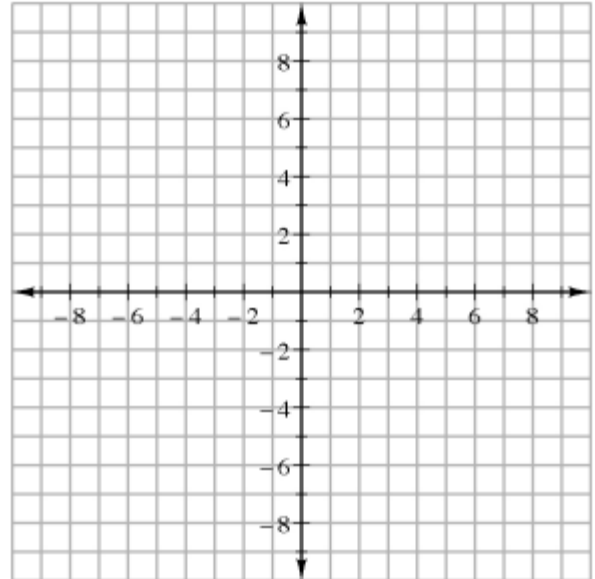
Name _____

Assigned Thursday 1/23, due Friday 2/7 (Two weeks due to end of semester)

No Work Shown, No Credit Given

Period _____

1. Find the distance between each pair of points.
- a) $(2, -4)$ and $(-9, -4)$ b) $(-3, 6)$ and $(-3, -8)$
- c) $(-11, 2)$ and $(-1, 2)$ d) $(-5, 20)$ and $(-5, -7)$



2. a) List the numbers in order from the stem and leaf plot above.
 b) Make a new stem and leaf plot for this data set:
 31, 31, 43, 47, 61, 66, 68, 70

Hours Worked	Amount of Dirt Excavated (cubic yards)
3	6.6
4	8.8
8	17.6
9	19.8

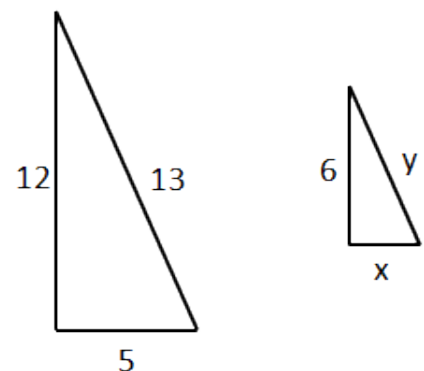
3. Is the relationship shown in the table at right proportional? \rightarrow
 If so, use it to write an equation that represents this proportion.
 If not, explain why it is not proportional.

4. Mrs. Mulligan keeps track of how many pencils she picks up each day in the hall. Her most recent data is listed here: 23 13 18 20 22 15

- a) Were there any outliers? If so, list them. If not, explain why.
 b) Find the mean. c) Find the median. d) Find the range.

5. The triangles are similar. The original is on the left; the copy is on the right.

- a) What is the scale factor?
 b) Find the lengths of the missing sides on the copy.



Boys	3	6		18
Girls	2		6	

6. Complete the proportion table.

7. a) What is the probability of rolling a 5 on a dice? Write your answer as a percent.

b) What is the probability of rolling an odd number on the die? Write your answer as a percent.

Please show your work for #8 - 13.

Pounds of Nails	2	3		6		10		x
Cost (\$)			2.15	2.58	3.44		8.60	

8. a) Complete the proportion table above.

b) Find the unit rate (price).

c) What does the unit rate tell you about the cost of the nails?

d) Write an equation that represents this proportion.

9. In a recent snail race, the winning snail traveled 5.7 cm in half of a minute. How fast was the snail traveling in centimeters per second?

10. Jo's Candy Emporium is having a sale. Three pounds of gummy bunnies are selling for \$4.

a) How much will two pounds cost?

b) What is the unit rate for gummy bunnies?

11. Evaluate each expression when $a = -6$, $b = 6$, $x = 11$, and $y = -5$.

a) $b - x - y$

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

c) $bx - 23\frac{8}{17}$

d) $-2ab^2$

e) $y^3 - y^2$

f) $a + x(b - y)$

12. Simplify each expression.

a) $\frac{2}{3}$ of $1\frac{2}{3}$

b) $1\frac{1}{2} \cdot \frac{7}{9}$

c) $10 \div 1\frac{1}{4}$

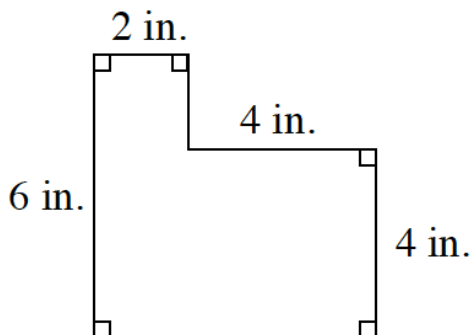
d) $1\frac{1}{4} \div 10$

e) $3\frac{1}{8} \cdot \frac{3}{5}$

f) $3141\frac{5}{12} - 705\frac{7}{9}$

13. Find the area of the figures below.

a)



b)

