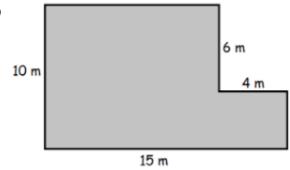
Math Concepts Problem Set 22

Name_

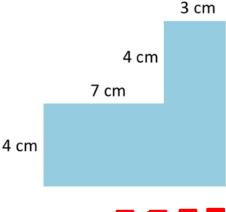
Assigned Thursday 3/5, due Friday 3/20 (2 weeks due to conferences).

1. Find the area of each figure below.

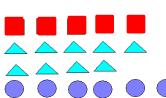
a)



b)



- 2. a) What percent of the shapes are squares?
 - **b**) What percent of the shapes are circles?
 - c) What is the ratio of triangles to squares?



- **3.** Convert each mixed number to an improper fraction greater than one.
- **a**) $3\frac{1}{4}$
- **b**) $2\frac{7}{9}$
- c) $4\frac{11}{20}$
- **d**) $1\frac{2}{23}$
- **e)** $17\frac{3}{10}$

4. Convert each fraction to a mixed number.

a)
$$\frac{19}{2}$$

b)
$$\frac{25}{8}$$

c)
$$\frac{38}{5}$$

d)
$$\frac{65}{10}$$

e)
$$\frac{711}{100}$$

5. Simplify each fraction.

a)
$$\frac{15}{25}$$

b)
$$\frac{10}{36}$$

c)
$$\frac{12}{36}$$
 d) $\frac{14}{42}$

d)
$$\frac{14}{42}$$

e)
$$\frac{170}{10}$$

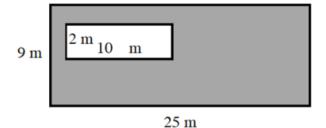
6. a)
$$-3 + -4 + -2$$

b)
$$-10 + 6 + -5$$

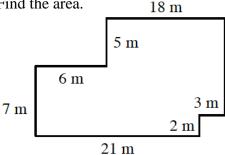
c)
$$8 + -11 + -7$$

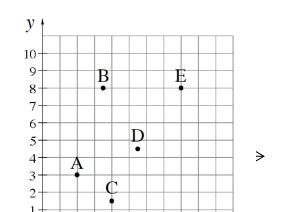
6. a)
$$-3 + -4 + -2$$
 b) $-10 + 6 + -5$ **c)** $8 + -11 + -7$ **d)** $-9 + -9 + -9 + -9$

7. a) Find the shaded area.



b) Find the area.





1 2 3 4 5 6 7 8 9 10

 \boldsymbol{x}

8. Write the points on the graph as ordered pairs.

$$\mathbf{a}) \mathbf{A} = (\quad , \quad)$$

$$\mathbf{b}) \mathbf{B} = (\quad , \quad)$$

a)
$$A = (,)$$
 b) $B = (,)$ **c)** $C = (,)$

d)
$$D = (,)$$
 e) $E = (,)$

e)
$$E = (,)$$

9. The first four multiples of 7 are 7, 14, 21 and 28.

- a) What are the first six multiples of 9?
- **b)** What are the first six multiples of 12?
- c) What is the least common multiple of 9 and 12?
- **d)** What is the greatest common factor of 9 and 12?

10. Simplify each algebra expression.

a)
$$n + 6 + n + 9 + n$$
 b) $3y + y + 5y + y$ **c)** $4x - 2x - 3x$ **d)** $m - 9m$

b)
$$3y + y + 5y + y$$

c)
$$4x - 2x - 3x$$

-----Please show your **work** for #11 - #14.-----

11. Evaluate when x = 4 and y = 10.

$$\mathbf{b)} \mathbf{x} + 3\mathbf{y}$$

$$\mathbf{c}) xy^2$$

b)
$$x + 3y$$
 c) xy^2 **d)** $x + y(y - x)$

12. a)
$$7.62 + 8 + 1.3$$
 b) $5.8 \div 4$ c) $7.11 - 0.8$ d) $(711)(128)$

c)
$$7.11 - 0.8$$

13. a)
$$2\frac{2}{5} + 1\frac{7}{8}$$
 b) $2\frac{2}{3} - 1\frac{5}{9}$ c) $7\frac{1}{8} + 3\frac{7}{10}$ d) $7\frac{1}{2} - 3\frac{1}{3}$

b)
$$2\frac{2}{3} - 1\frac{5}{9}$$

c)
$$7\frac{1}{8} + 3\frac{7}{10}$$

d)
$$7\frac{1}{2} - 3\frac{1}{3}$$

14. Your uncle, who really likes to travel, has visited 35 of the 50 states in our country. What percent of the United States has he visited?