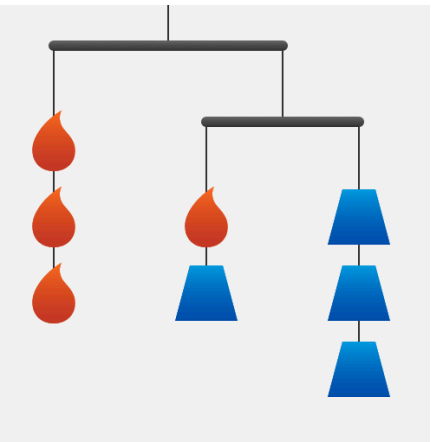
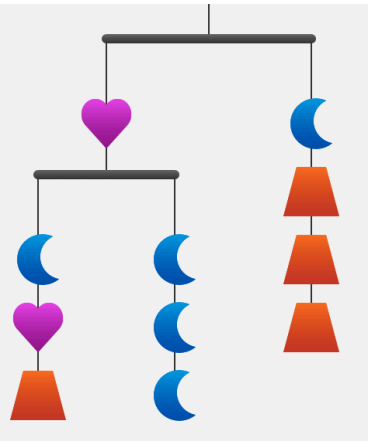
Day 5 HW

Name:_____ Date:_____

Write linear equations to represent the following diagrams, using variables to represent the shapes:

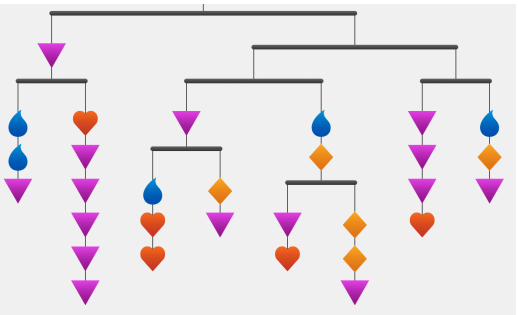
1. 

Equation: _____

2. 

Equation: _____

3. (Optional) Challenge Exercise?



Equation: _____

Day 5 Hw

Complete the following exercises.

1. Match these equation balancing steps with the description of what was done in each step.

A. Step 1:

$$12x - 6 = 10$$
$$6x - 3 = 5$$

B. Step 2:

$$6x - 3 = 5$$
$$6x = 8$$

C. Step 3:

$$6x = 8$$
$$x = \frac{4}{3}$$

1. Add 3 to both sides
2. Multiply both sides by $\frac{1}{6}$
3. Divide both sides by 2

2. Match each set of equations with the move that turned the first equation into the second.

A. $6x + 9 = 4x - 3$

$$2x + 9 = -3$$

B. $-4(5x - 7) = -18$

$$5x - 7 = 4.5$$

C. $8 - 10x = 7 + 5x$

$$4 - 10x = 3 + 5x$$

D. $\frac{-5x}{4} = 4$

$$5x = -16$$

E. $12x + 4 = 20x + 24$

$$3x + 1 = 5x + 6$$

1. Multiply both sides by $\frac{-1}{4}$
2. Multiply both sides by -4
3. Multiply both sides by $\frac{1}{4}$
4. Add $-4x$ to both sides
5. Add -4 to both sides

3. Elena is solving 15 - 10x = 5(x+9). What are 2 different methods she can use to solve for x in this problem?