Review – Chapter 3   Name _____
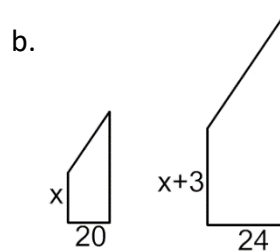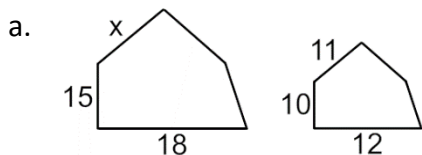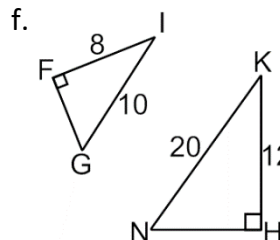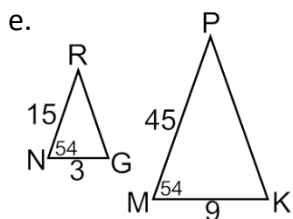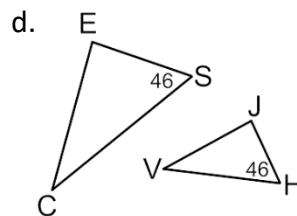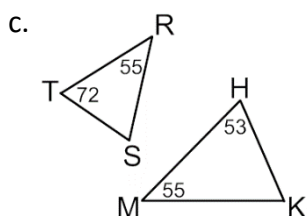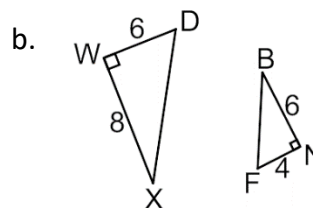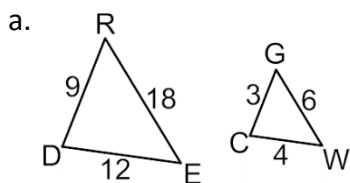
Show all work neatly, and circle your answers.

1. Find the equation of the line that passes through the points A(-3, 6) and B(2, -14).

2. Find the equation of the line that is perpendicular the line from problem #1, **and** passes through B.

3. Solve the system of equations.

   2x – y = 9

   3x + 4y = -14

4. Sam is selling lemonade to raise money for a new bike. His mom gives him $13.00 to start. He will charge $0.50 per glass. Write an equation to represent this situation.

   b. How many glasses of lemonade will Sam need to sell to have $37.00 for the bike he wants to buy?

5. In your own words, what does it mean for two shapes to be similar?

   b. In your own words, what does it mean for two shapes to be congruent?

6.   Write an equation and solve for x in the following problems. The figures are similar.

a.

b.

7.   Based on the given information, decide if the following triangles are similar. Show your work and either a) give a similarity statement and the reason why they are similar, or b) state that they are not similar and explain why they are not similar.

a.

b.

c.

d.

e.

f.

8.   Find the values of x, y, and z. Use correct angle pair names and relationships to justify your work.