

Name: \_\_\_\_\_

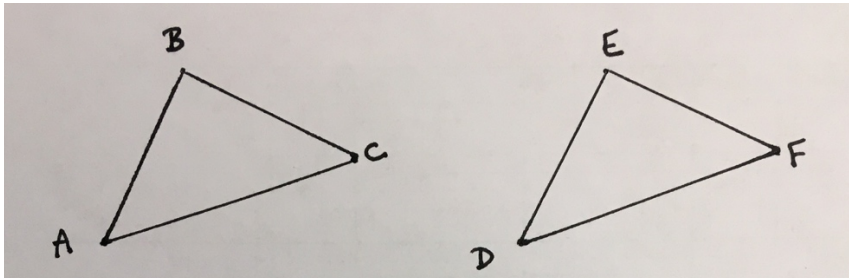
3b.1 Guided notes  
Math – Wolfe 2020

*Congruent and similar triangles*

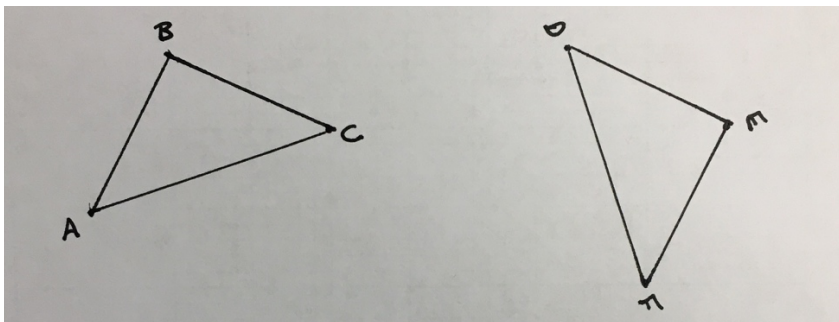
Just like numbers that are the same are equal, shapes that are exactly the same are **congruent**.

Congruent figures have the same \_\_\_\_\_ and the same \_\_\_\_\_ .

They might look exactly the same:



Or they might look different at first. They can be facing a different way or flipped around, but if you could pick up one figure and lay it perfectly on the other, they are congruent.



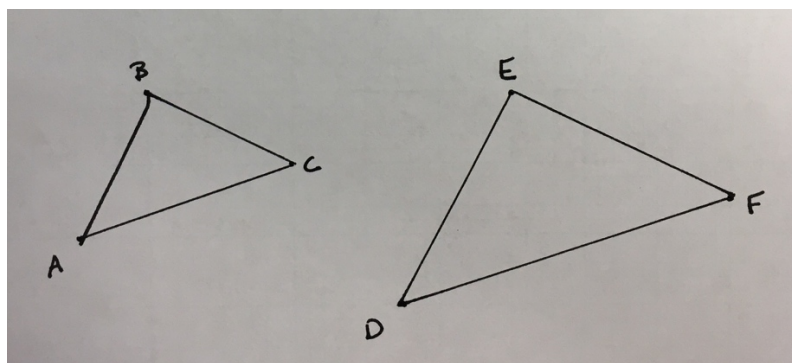
If two figures are congruent, we can match up the corners, or \_\_\_\_\_. Pairs of angles that match up are called \_\_\_\_\_. We can do the same thing with the sides – each side in the first triangle has a matching side in the second. Corresponding angles and sides are

\_\_\_\_\_ .

|     |   |     |   |
|-----|---|-----|---|
| A = | = | a = | = |
| B = | = | b = | = |
| C = | = | c = | = |

If two figures are the same \_\_\_\_\_ but different \_\_\_\_\_, we call them similar.

Similar triangles still have corresponding angles that are congruent, but obviously the lengths of the sides are different. They do have a relationship, though! Corresponding sides are \_\_\_\_\_.



$A = \quad = \quad \quad \quad a = \quad \quad \quad d =$

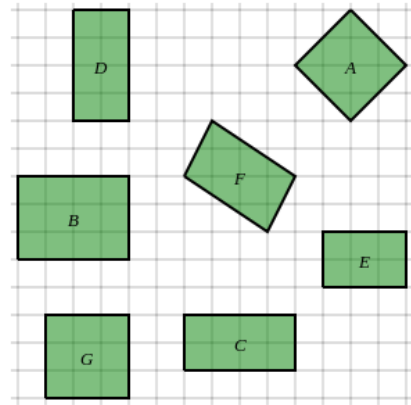
$B = \quad = \quad \quad \quad b = \quad \quad \quad e =$

$C = \quad = \quad \quad \quad c = \quad \quad \quad f =$

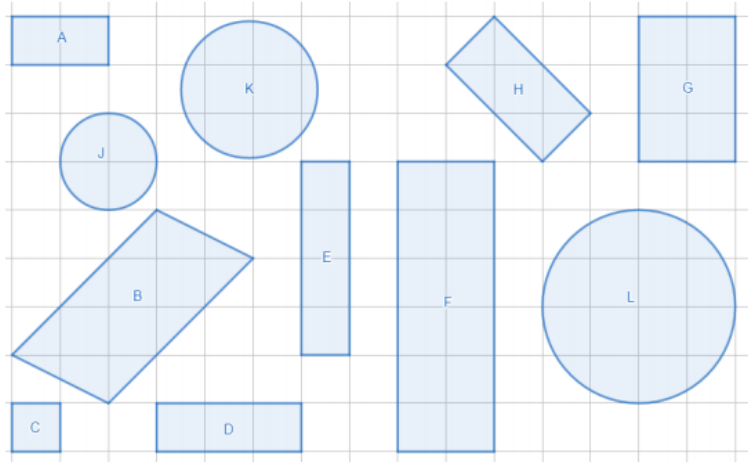
Name: \_\_\_\_\_

3b.1 Practice  
Math – Wolfe 2020

1. Name any pairs of congruent shapes in the diagram at right:



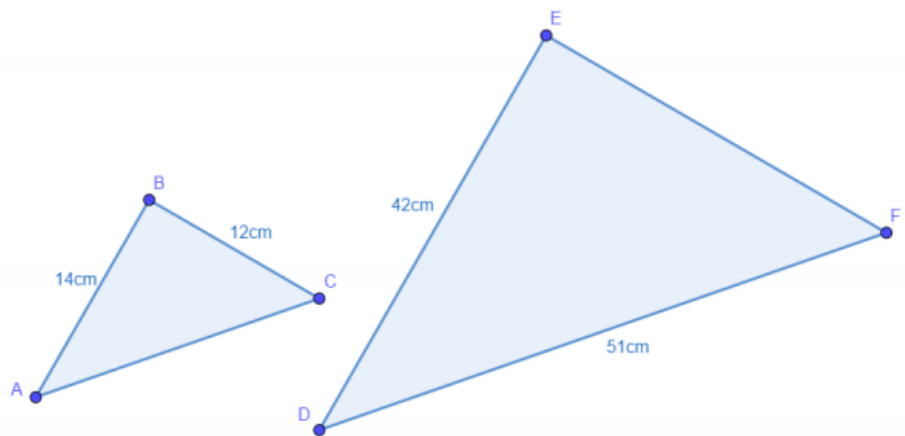
2. List the similar shapes (there are two pairs and one group of three)



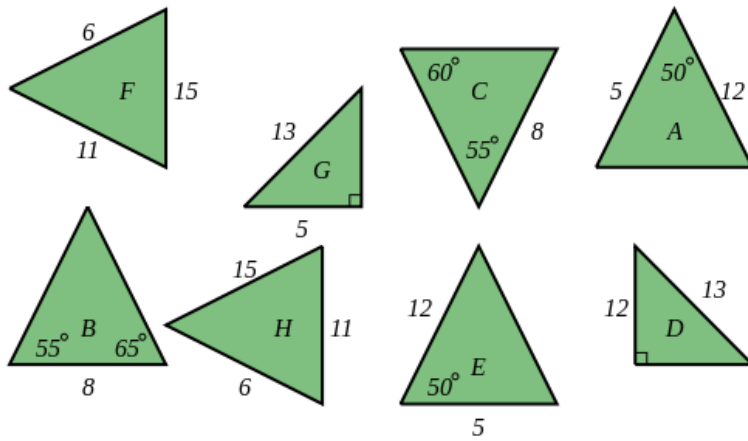
3. The triangles at right are similar. Find the missing sides.

b = \_\_\_\_\_

d = \_\_\_\_\_



4. *\*extending\** Identify all pairs of congruent triangles. This diagram is not to scale, so you need to look at the side lengths and angle measures given.



Answers:

1. D and C
2. A and H; D and F; J, K, and L
3.  $b = 17$  cm,  $d = 36$  cm
4. A and E, F and H, C and B, D and G