1. Draw two perpendicular lines. How many times do they intersect? How many right angles do they form?
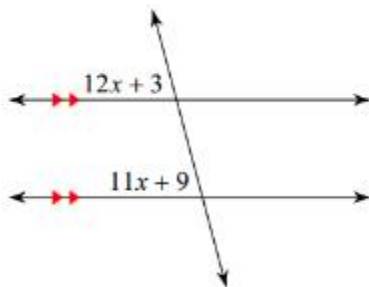
2. There are two points, A and B. Answer the following questions:

    a. How many lines can you draw that contain both A and B?

    b. How many points are between A and B?

    c. Is the length of AB equal to BA?

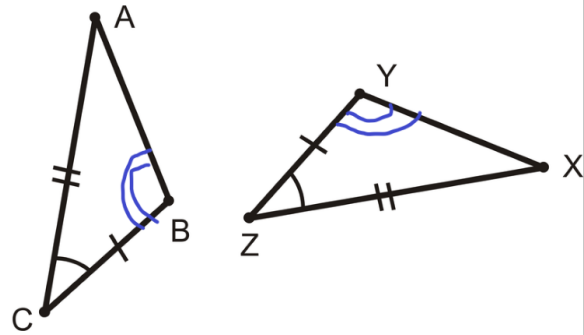   d. Draw a line segment called CA that does NOT contain point B.

3. Given the parallelogram, solve for x:
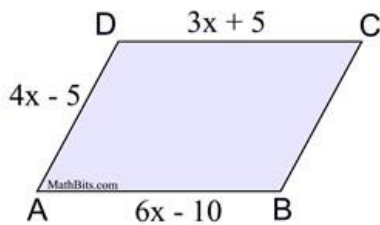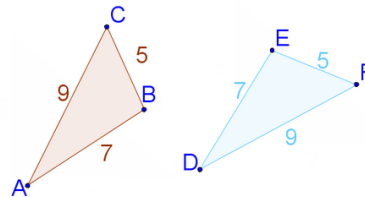

4. Given the figure, solve for x

5. What are two ways to prove these two triangles congruent?

A. SSS   B. SAS

C. ASA   D. HL

6. List TWO DIFFERENT METHODS to prove the two triangles congruent (for the second method, think about our transformation unit)
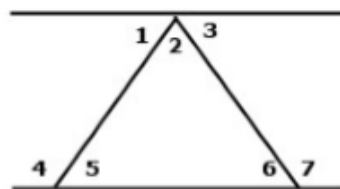

Method 1:

Method 2:

7. I rotate triangle ABC to create triangle A'B'C'. What do I know about angle A and A'? What do I know about side BC and B'C'?
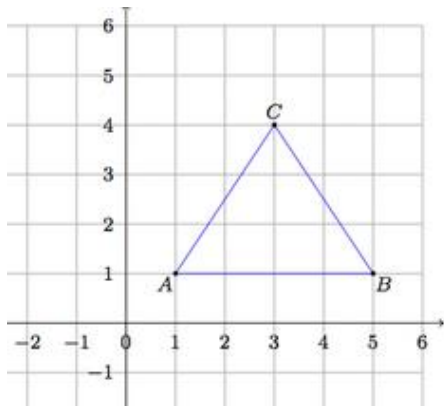
8. Jeremy claims that angle 2 is congruent to angle 4 because they are alternate interior angles. Is he correct? Explain.

9. Define and draw a pair of parallel lines.

10. Do parallel lines have the same slope or different slopes?

11. What transformations will take this triangle back onto itself? (Be specific)

12. The point A (4, -3) is rotated 90 degrees counterclockwise about the origin. Then it is reflected across the y-axis to form a new point A'. Where is A'?

13. The point B (-7, 2) is transformed using the rule (x, y) -> (-y, x+10). Where is the new point B'?

16. Apply the rule (x, y) -> (-x, -y) to the following triangle. DRAW the new triangle on the coordinate plane.
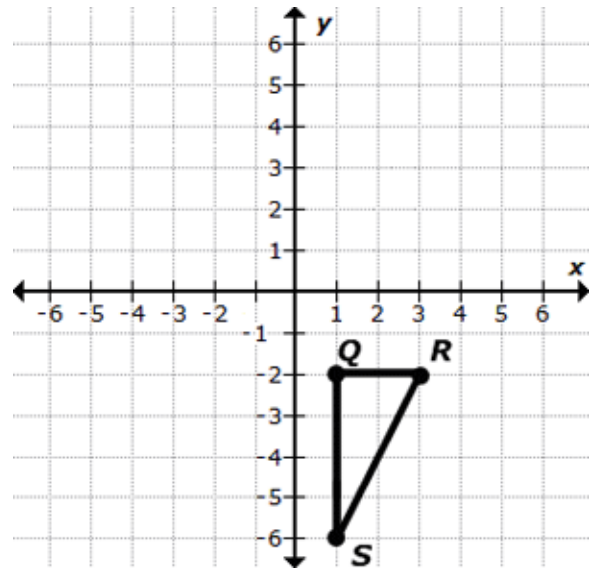
16. List the corresponding and alternate interior angles on the figure below.
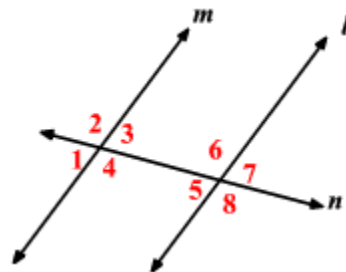
Alternate interior:

Corresponding:

17. What are TWO possible ways that the square on the left was transformed to become the square on the right?