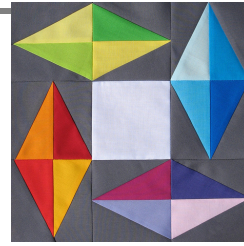


Name: _____

Geometric Figures 5.6



Ready, Set, Go!

Ready

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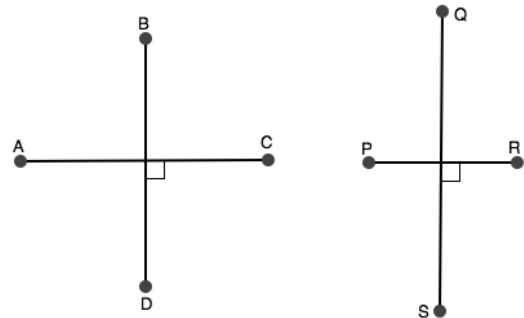
Topic: Sketching quadrilaterals based on specific features.

Sketch the quadrilateral by connecting the points in alphabetical order. Close the figure.

1. In both figures, the lines are perpendicular bisectors of each other.

a. Are the quadrilaterals you sketched congruent?

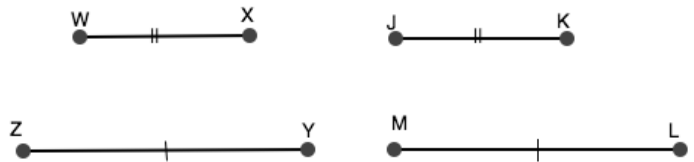
b. What additional requirement(s) is/are needed to make the figures congruent?



2. In both figures one set of opposite sides are parallel and congruent.

a. Are the quadrilaterals you sketched congruent?

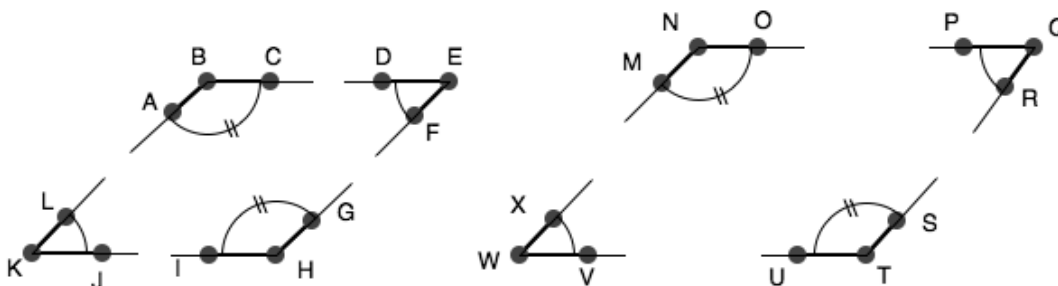
b. What additional requirement(s) is/are needed to make the figures congruent?



3. In both figures corresponding angles are congruent.

a. Are the quadrilaterals you sketched congruent?

b. What additional requirement(s) is/are needed to make the figures congruent?



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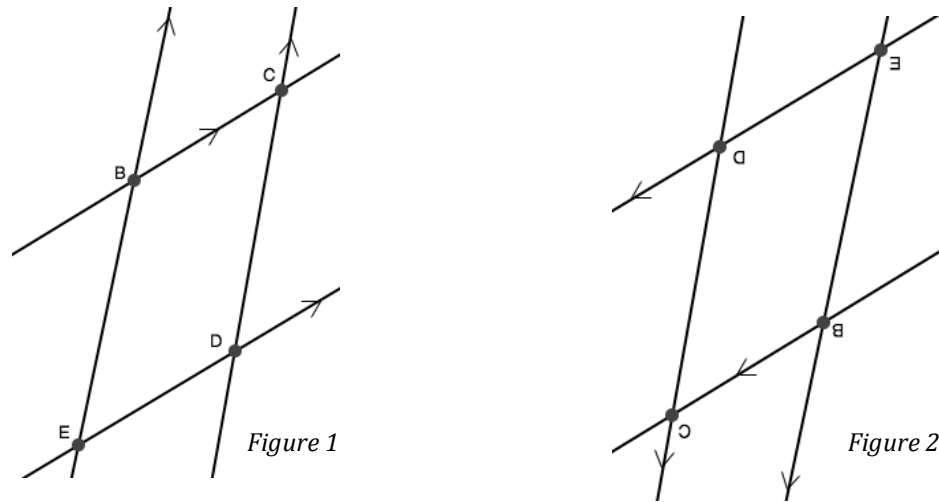
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Set

Topic: Properties of parallelograms

4. Quadrilateral BCDE below was formed by 2 sets of intersecting parallel lines. Figure 2 is the image of figure 1. It has been rotated 180° . Find the center of rotation for figure 1. Make a list of everything that has been preserved in the rotation. Then make a list of anything that has changed. Is quadrilateral BCDE a parallelogram? How do you know?



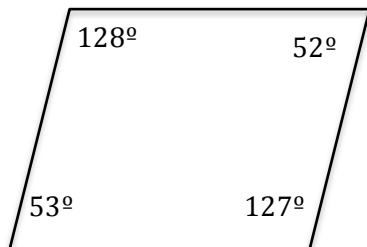
Go

The following theorems all concern parallelograms:

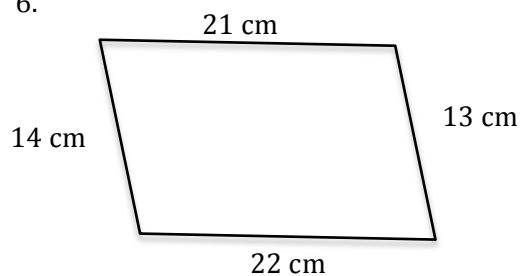
- ❖ Opposite sides of a parallelogram are congruent.
- ❖ Opposite angles of a parallelogram are congruent.
- ❖ Consecutive angles of a parallelogram are supplementary.
- ❖ The diagonals of a parallelogram bisect each other.

Give a reason from the list above that explains why it is NOT possible for each figure below to be a parallelogram. List ALL that apply.

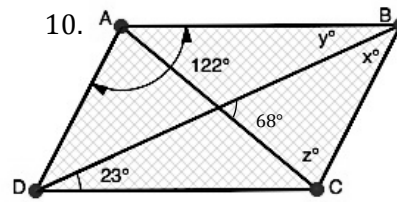
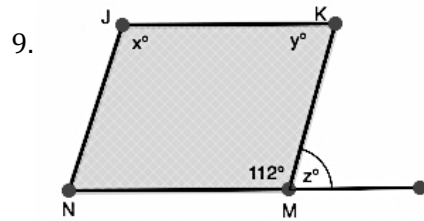
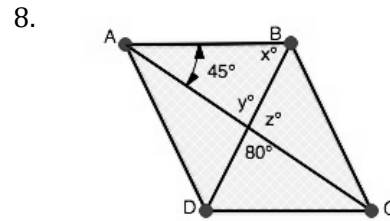
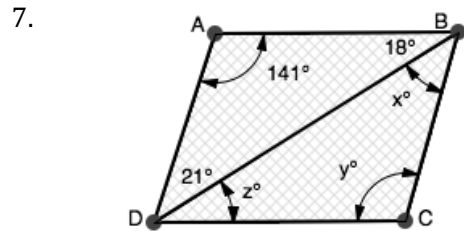
5.



6.



Each quadrilateral below is a parallelogram. Find the values of x , y , and z .



Go

Topic: Using correct mathematical symbols

Rewrite the phrases below using correct mathematical symbols.

Example: Eleven plus eight is nineteen. $11 + 8 = 19$

- 11. Triangle ABC is congruent to triangle GHJ. _____
- 12. Segment BV is congruent to segment PR. _____
- 13. Three feet are equal to one yard. _____
- 14. Line TR is parallel to line segment WQ. _____
- 15. Ray VP is perpendicular to segment GH. _____
- 16. Angle 3 is congruent to angle 5. _____
- 17. The distance between W and X is 7 feet. _____
- 18. The length of segment AB is equal to the length of TR. _____
- 19. The measure of angle SRT is equal to the measure of angle CDE. _____
- 20. Explain when it is proper to use an equal sign and when it is proper to use the congruent symbol.

