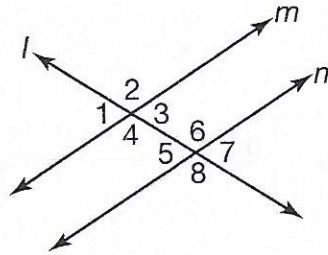


3 LESSON PRACTICE

Use the figure below for questions 1 and 2. Lines m and n are parallel and are cut by transversal l .



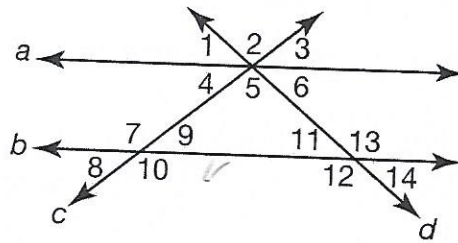
- 1 List four different pairs of vertical angles.

- 2 Look at each pair of angles. Do the angles have the same measure? Select Yes or No.

- A. $\angle 3$ and $\angle 2$ Yes No
- B. $\angle 5$ and $\angle 1$ Yes No
- C. $\angle 4$ and $\angle 6$ Yes No
- D. $\angle 4$ and $\angle 8$ Yes No
- E. $\angle 3$ and $\angle 6$ Yes No

- 3 Draw a pair of parallel lines intersected by a transversal so at least one angle is a 45° angle. Label all of the angle measures in your drawing.

Use the figure below for questions 4 and 5.



4 Classify each pair of angles. Write the angle pair in the correct box.

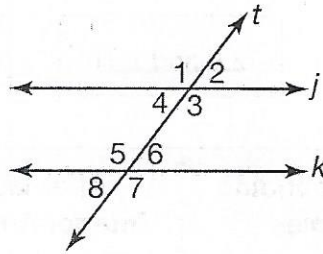
$\angle 8$ and $\angle 9$	$\angle 4$ and $\angle 9$	$\angle 14$ and $\angle 1$
$\angle 12$ and $\angle 13$	$\angle 6$ and $\angle 11$	$\angle 8$ and $\angle 4$

Vertical Angles	Corresponding Angles	Alternate Interior Angles	Alternate Exterior Angles

5 Aarav measured $\angle 9$ using a protractor and found it to be 39° . He said that $\angle 13$ must also be 39° since $\angle 9$ and $\angle 13$ are corresponding angles. Do you agree with Aarav? Explain.

- 6 Can a pair of angles be both vertical angles and corresponding angles at the same time? Use words, numbers, or a drawing to justify your answer.

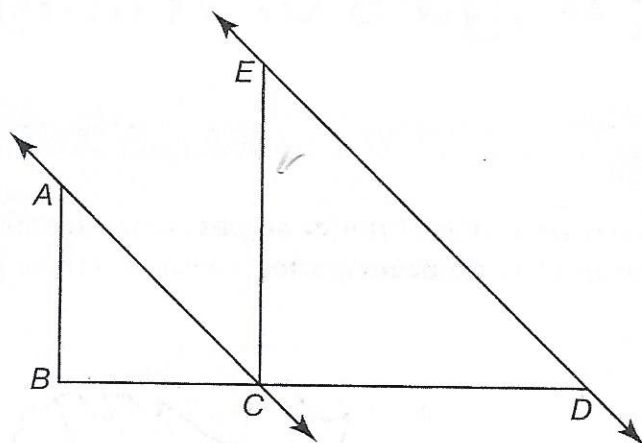
- 7 In the figure below, $j \parallel k$, and both lines are cut by transversal t . Suppose line t was moved so that $\angle 2$ had a greater measure.



How will the other angle measures change? Select True or False for each statement.

- A. The measure of $\angle 1$ will stay the same. True False
- B. The measure of $\angle 6$ will increase. True False
- C. The measure of $\angle 7$ will decrease. True False
- D. The measure of $\angle 4$ will decrease. True False
- E. The measure of $\angle 5$ will decrease. True False
- 8 Santiago notices that when a pair of parallel lines is cut by a transversal and one angle is a right angle, all of the other angles are also right angles. Use words, numbers, or drawings to explain why Santiago's observation is true.

- 9 In the figure below, $\overleftrightarrow{AC} \parallel \overleftrightarrow{ED}$ and $\angle ABC$ and $\angle ECD$ are right angles.



Part A

Find a pair of corresponding angles, a pair of alternate interior angles, and a pair of vertical angles in the figure.

Corresponding angles: _____ and _____

Alternate interior angles: _____ and _____

Vertical angles: _____ and _____

Part B

Find two pairs of angles from $\triangle ABC$ and $\triangle ECD$ that have the same measure. Explain how you found your answer.