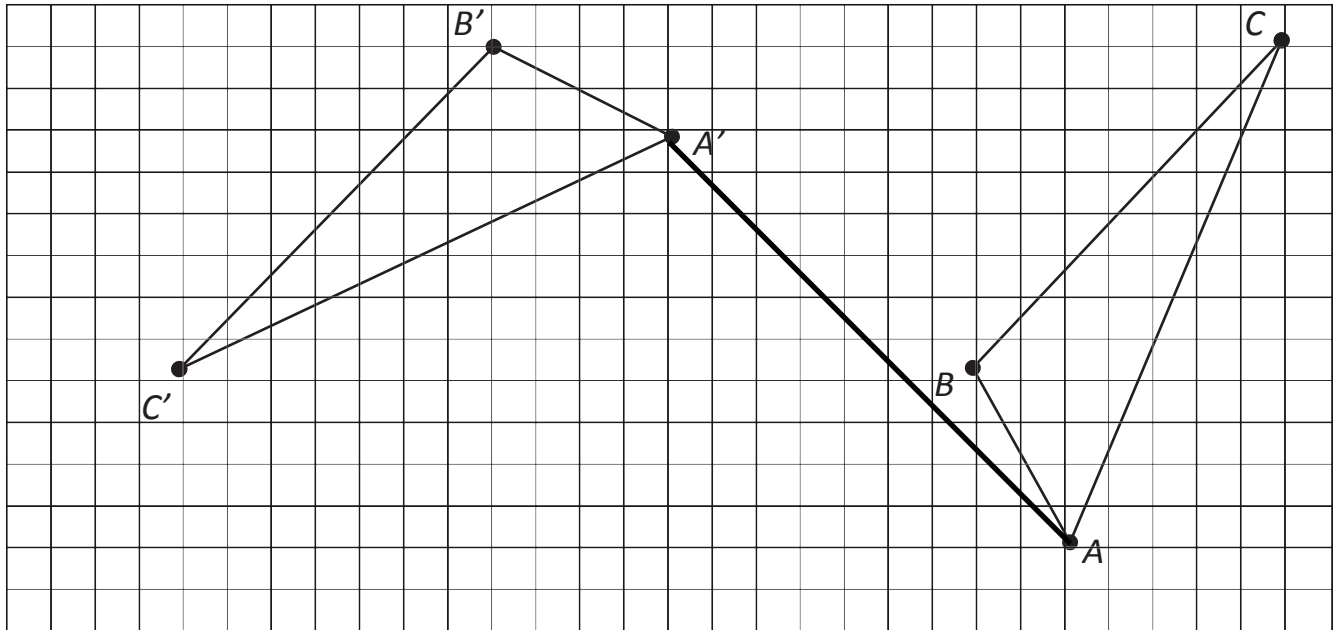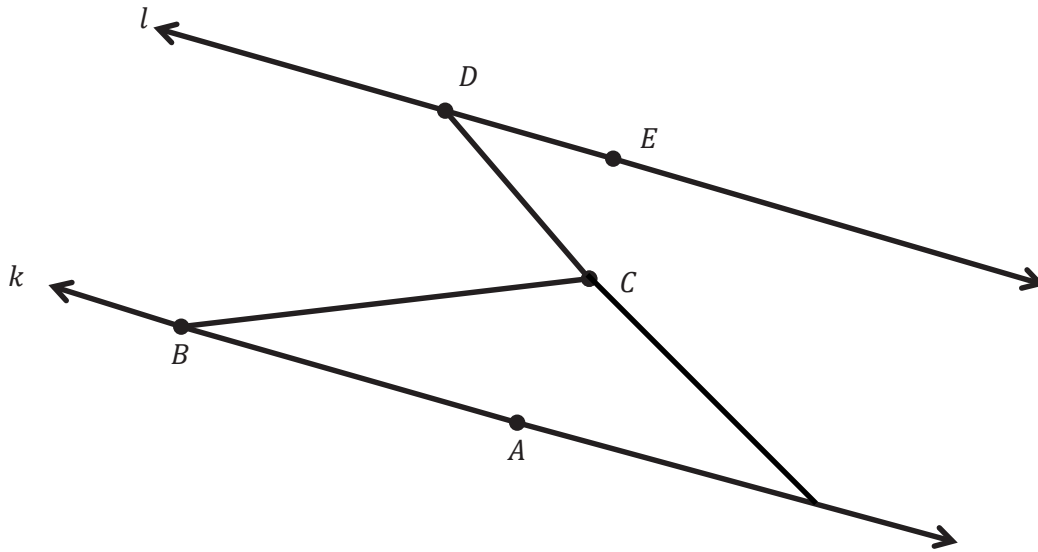Name _____   Date _____

1. $\triangle ABC \cong \triangle A'B'C'$. Use the picture to answer the question below.

Describe a sequence of rigid motions that would prove a congruence between $\triangle ABC$ and $\triangle A'B'C'$.
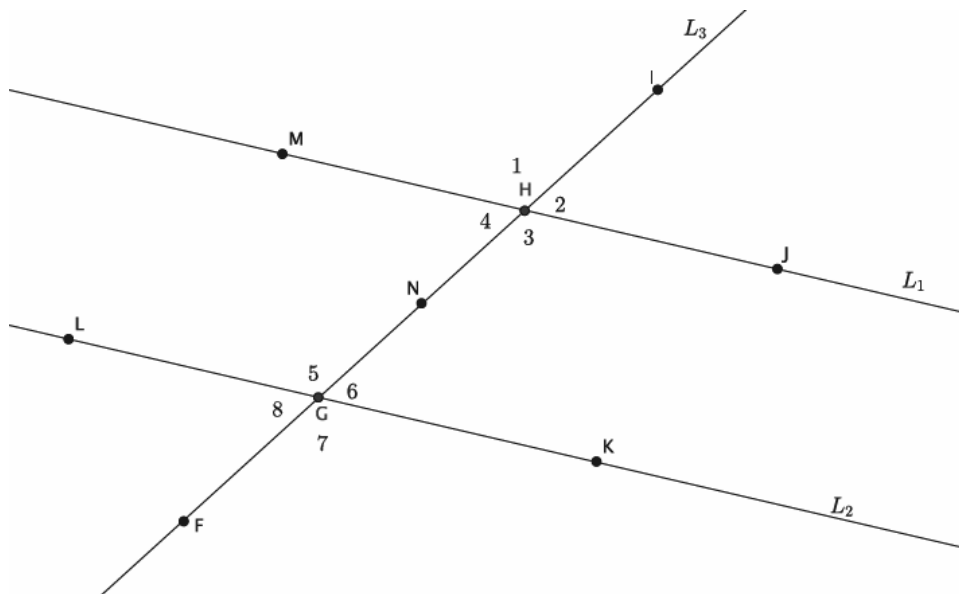
2. Use the diagram to answer the question below.

$k \parallel l$

Line k is parallel to line l. $m\angle EDC = 41°$ and $m\angle ABC = 32°$. Find the $m\angle BCD$. Explain in detail how you know you are correct. Add additional lines and points as needed for your explanation.

3. Use the diagram below to answer the questions that follow. Lines L_1 and L_2 are parallel, $L_1 \parallel L_2$. Point N is the midpoint of segment GH.


a. If the measure of $\angle IHM$ is 125°, what is the measure of $\angle IHJ$? $\angle JHN$? $\angle NHM$?

b. What can you say about the relationship between $\angle 4$ and $\angle 6$? Is pair congruent or supplementary? Name another pair of angles with this same relationship.

c. What can you say about the relationship between $\angle 1$ and $\angle 5$. Is the pair congruent or supplementary? Name another pair of angles with this same relationship.
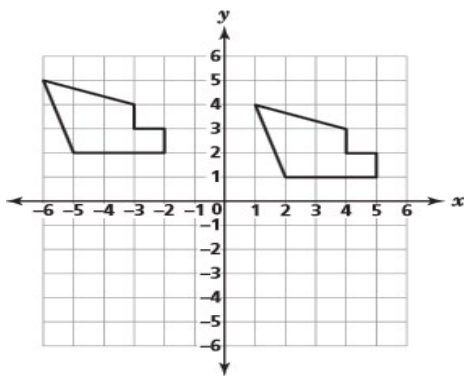
Name: **Date:**

1. Using the diagram below, find the measure of angle B. Show all of your work below.
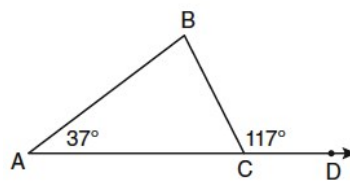
(Not drawn to scale)

2. Which term **best** describes the transformation shown below?

(A) dilation

(B) rotation

(C) reflection

(D) translation

3.The accompanying diagram shows the starting position of the spinner on a board game.

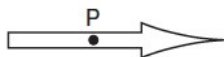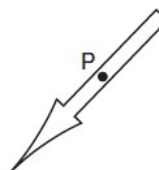How does this spinner appear after a 90° counterclockwise rotation about point *P*?

(1)

(2)

(3)

(4)

4.Carson is a decorator. He often sketches his room designs on the coordinate plane. He has graphed a square table on his grid so that its corners are at the coordinates $A(2,6)$, $B(7,8)$, $C(9,3)$, and $D(4,1)$. To graph a second identical table, he reflects $ABCD$ over the y-axis.
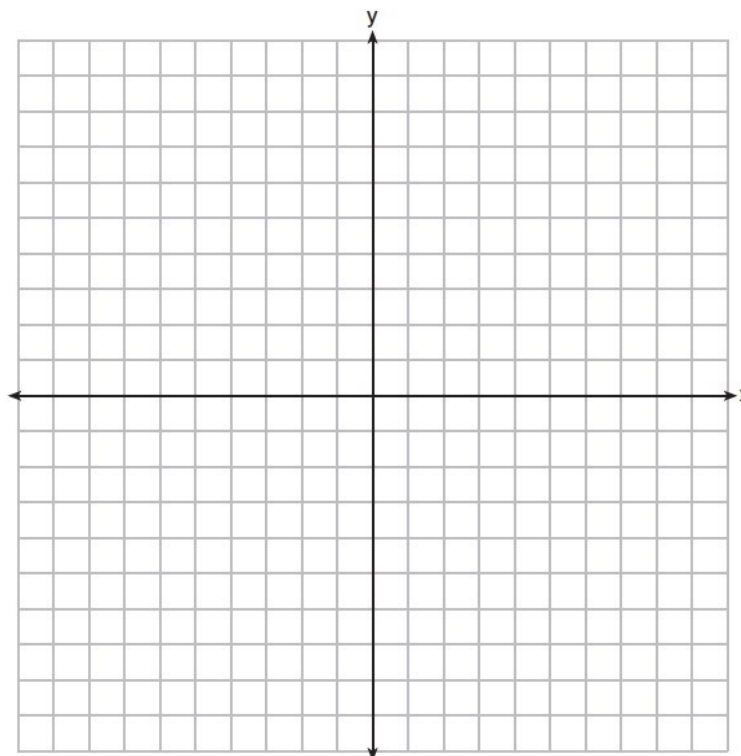
On the accompanying set of coordinate axes, sketch and label $ABCD$ and its image $A'B'C'D'$, which show the locations of the two tables. What are the coordinates of A'B'C'D'

A':

B':

C':
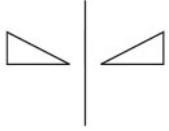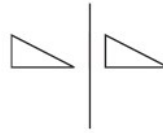
D':
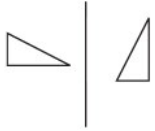
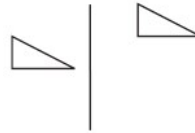5.Which figure below shows a reflection?

(A)

(B)

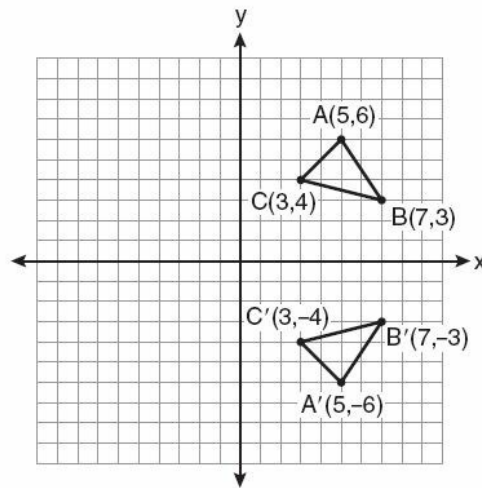

(C)

(D)

6.Which expression best describes the transformation shown in the diagram below?
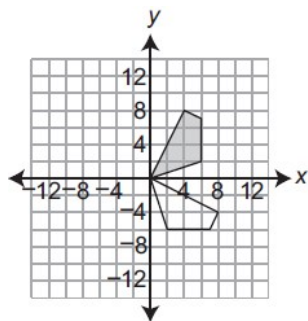

(1) reflection over the x axis

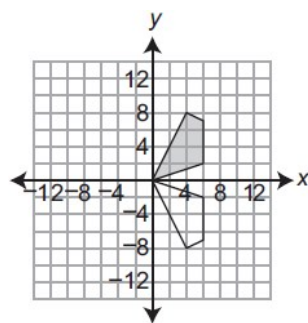(2) reflection over the y axis

(3) translation 6 units up

(4) translation 6 units down

7.Which coordinate plane shows that the shaded polygon is the image of the unshaded polygon after a 90° counterclockwise rotation about the origin?
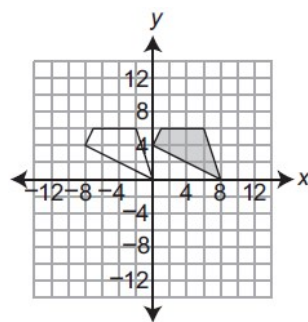
(A)

(B)

(C)

(D)