

Name: _____

Period: _____

Geometry Block Unit 1

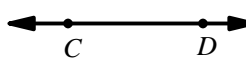

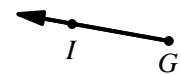
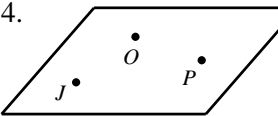
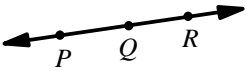

VOCABULARY:

Definition	What does it look like?	How is it written?
A point has no _____.		
A line extends in _____ dimension.		
A plane extends in _____ dimensions.		
Collinear points are points that lie in the same _____.		
Coplanar points are points that lie in the same _____.		
A line segment AB consists of _____ A and B , and all the points on line AB that are _____ A and B .		
A ray AB consists of the initial point _____ and all the points on the line AB that lie on _____ of A as point B .		
Opposite rays are rays that share an _____ and together form a _____.		
Intersect -		

THINK ABOUT IT!

<p>Is there a difference between lines \overline{AB} and \overline{BA}?</p>	<p>Is there difference between \overrightarrow{AB} and \overrightarrow{BA}?</p>
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Example 1: Give all the names of the figures shown below.

<p>1. </p>	<p>2. </p>	<p>3. </p>	<p>4. </p>
<p>5. </p>	<p>6. </p>		

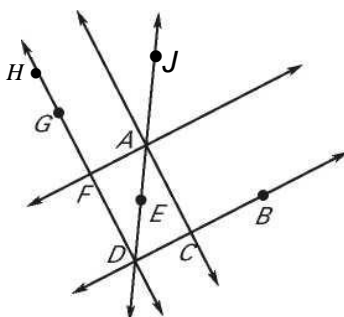
Example 2: Name segments and rays.

a. Give another name for \overline{CB} .

b. True or false: \overleftrightarrow{JA} and \overleftrightarrow{ED} are the same line.

c. \overrightarrow{FG} and _____ are the *same* rays.

d. Name all the points given on \overleftrightarrow{HF} .

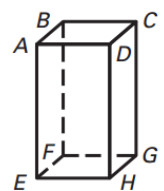


When points are created by intersections of lines, dots are not needed!

Example 3: Name the points:

1. Name three points in the diagram that are not collinear.

2. Name the point in the diagram that is coplanar with points A, D, and E.

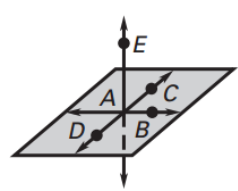


Example 4: Name the Points:

a. Name three points that are collinear.

b. Name three points that are coplanar.

c. Name four points that are not coplanar.



Example 5: Opposite Rays:

Draw a line. Label three points on the line and name a pair of opposite rays.

Draw points X, Y, and Z on the given line so that Y is between X and Z.

The opposite rays are _____ and _____.

NOTES: Transformations:

VOCABULARY:

Transformation - A function that changes the position, shape and size of a figure

Preimage - The original figure

Image - The resulting image after a transformation

Rigid motion - They preserve distance, angle measure, and collinearity

Translation - A transformation along a vector such that the segment joining a point and its image have the same length

NOTES: Translations:

Translations Notes:

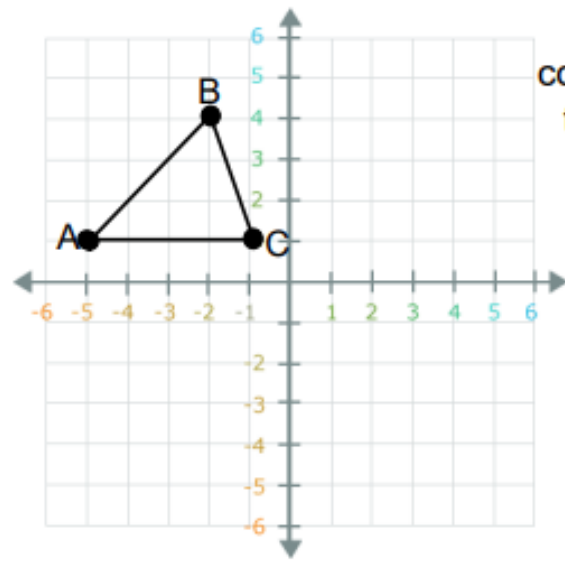
Translation Rule:
 $(x + h, y + k)$
 h: + right k: + up
 - left - down

Pre-image:

A ()

B ()

C ()



What are the image coordinates if you translate the triangle right 5 units and down 3 units?

Image:

A' ()

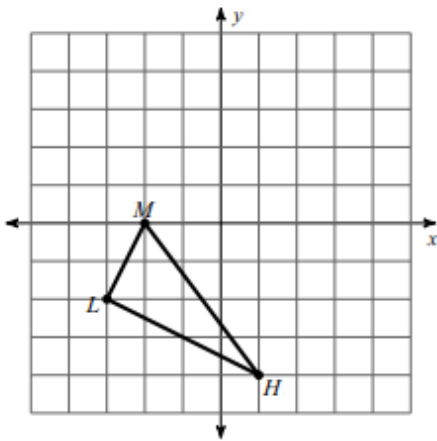
B' ()

C' ()

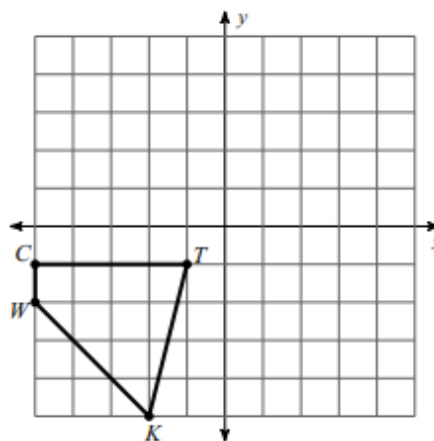
Translation rule: _____

Graph the image of the figure using the transformation given.

1) translation: 3 units right and 1 unit up

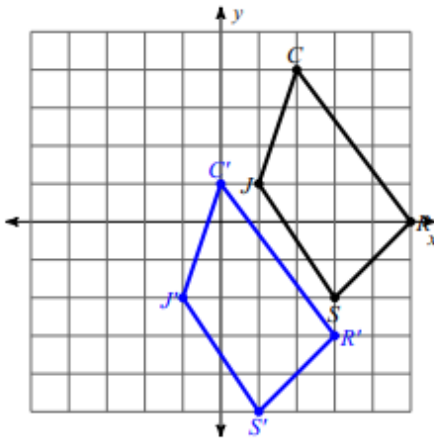


2) translation: $(x, y) \rightarrow (x + 6, y + 3)$



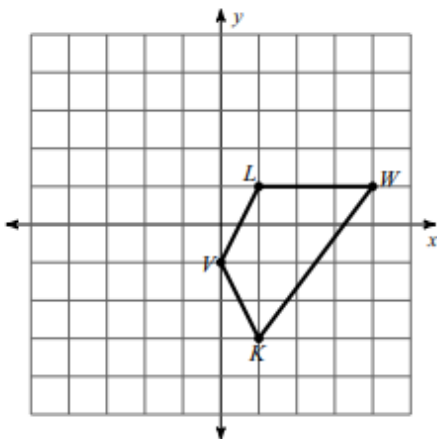
Write a rule to describe each transformation.

3)



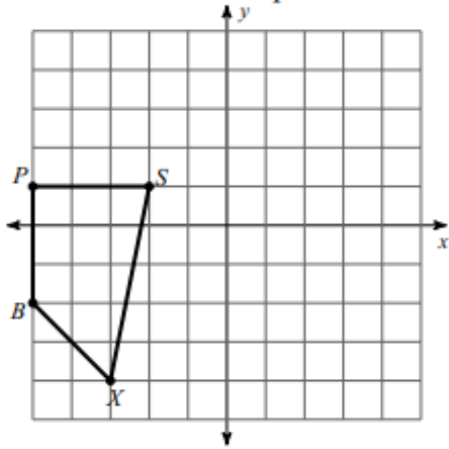
Graph the image of the figure using the transformation given.

4) translation: $(x, y) \rightarrow (x, y + 2)$

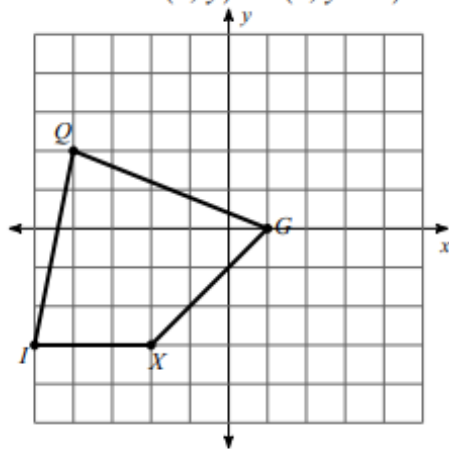


Find the coordinates of the vertices of each figure after the given transformation.

5) translation: 4 units up

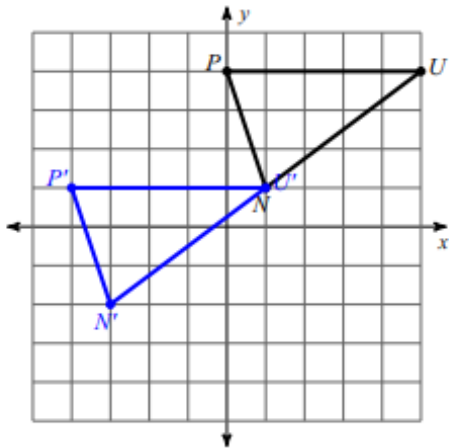


6) translation: $(x, y) \rightarrow (x, y + 3)$

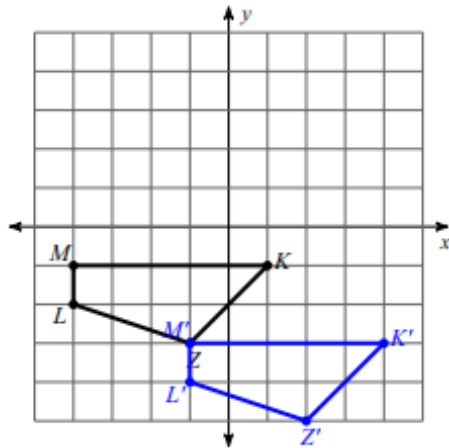


Write a rule to describe each transformation.

7)

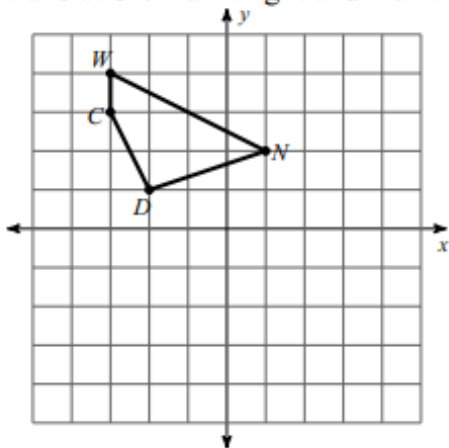


8)



Find the coordinates of the vertices of each figure after the given transformation.

9) translation: 1 unit right and 1 unit up



10) translation: 4 units left and 5 units up

