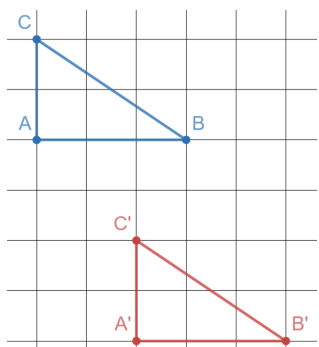


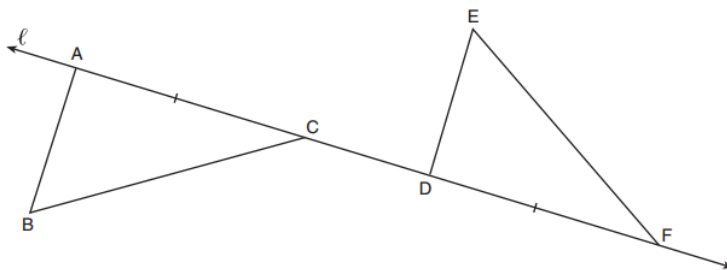
Warm Up



Verbal Description

Coordinate Notation

In the diagram below, $\overline{AC} \cong \overline{DF}$ and points A , C , D , and F are collinear on line l .



Let $\triangle D'E'F'$ be the image of $\triangle DEF$ after a translation along l , such that point D is mapped onto point A . Determine and state the location of F' . Explain your answer.

Let $\triangle D''E''F''$ be the image of $\triangle D'E'F'$ after a reflection across line l . Suppose that E'' is located at B . Is $\triangle DEF$ congruent to $\triangle ABC$? Explain your answer.

For each slope below, write a perpendicular slope.

$$\frac{2}{3}$$

$$-\frac{5}{4}$$

$$\frac{1}{7}$$

$$-4$$

$$1$$

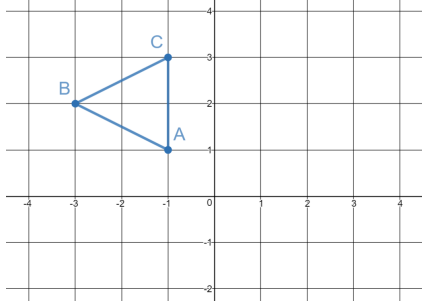
How many Hershey's are in the jar?

Too Low	Official Guess	Too High

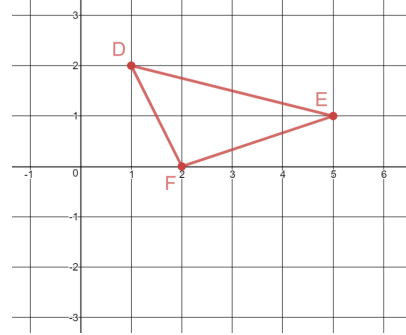
Reflections

Transformations Big Idea: Congruent parts of a polygon map to its congruent parts under a reflection.

Reflect $\triangle ABC$ across the y-axis.

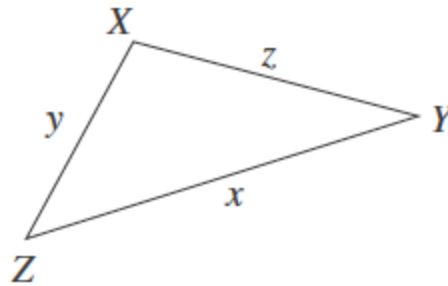


Reflect $\triangle DEF$ across the x-axis.



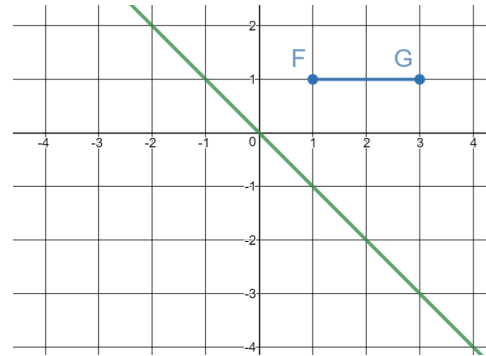
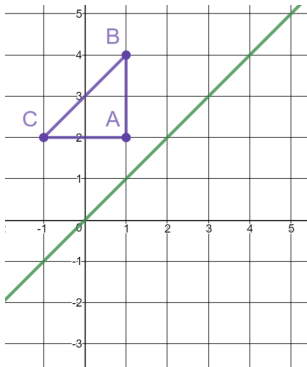
Describe the process of reflecting the triangles above. (mapping video → bit.ly/refmap)

The triangle, $\triangle XYZ$, that is shown below has side lengths of x , y , and z inches and is not a right triangle. Let X' be the image of X when the triangle is reflected across \overline{YZ} . Which of the following is an expression for the perimeter, in inches, of quadrilateral $X'YXZ$?



- F. $2(y + z) + x$
- G. $2(x + y + z)$
- H. $2(x + y)$
- J. $2(x + z)$
- K. $2(y + z)$

Remember perpendicular lines? Use those to reflect the following.



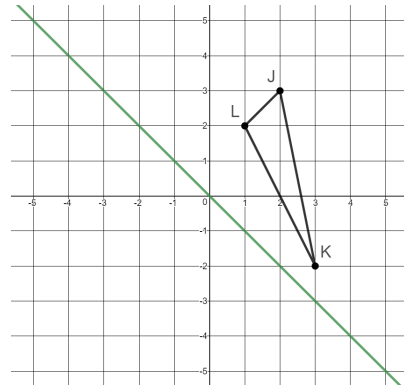
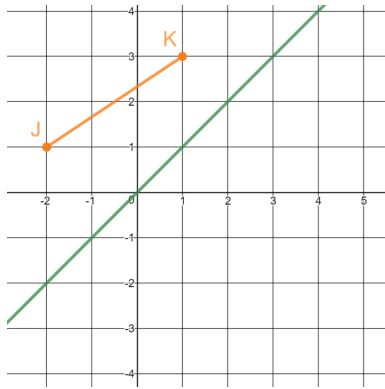
Coordinate Rules

$$y = x$$

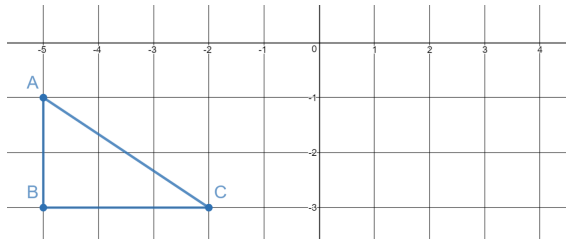
$$(a, b) \rightarrow (b, a)$$

$$y = -x$$

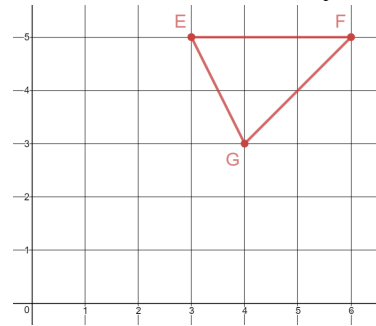
$$(a, b) \rightarrow (-b, -a)$$



Reflect $\triangle ABC$ in the line $x = -1$.



Reflect $\triangle EFG$ in the line $y = 4$.



What is the equation of the line of reflection for each of these?

