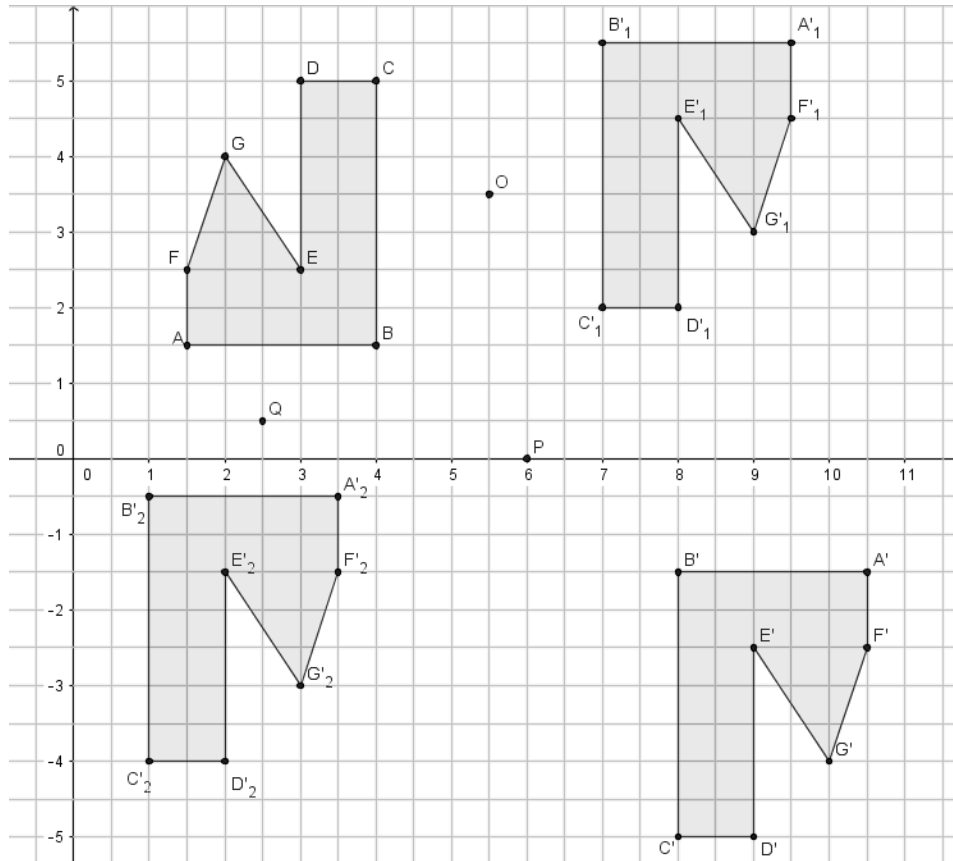


# WORKSHEET: POINT REFLECTION

Look at the picture below



Answer to these questions:

- Have the figures the same perimeter?
- Have the figure the same areas?

What can you observe? Try to explain it.

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A and A'  
B and B'



Connect two correspondent points. What can you observe?

All the segments that connect two correspondent points \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**The process you observe is named POINT SYMMETRY**

In a point symmetry every point has a watching part that has the same distance from the central point but in the opposite direction. It looks the same when viewed from opposite directions.

The initial object is called the pre-image and the object after the symmetry is called the image.

Where can you find symmetry in nature or real life?

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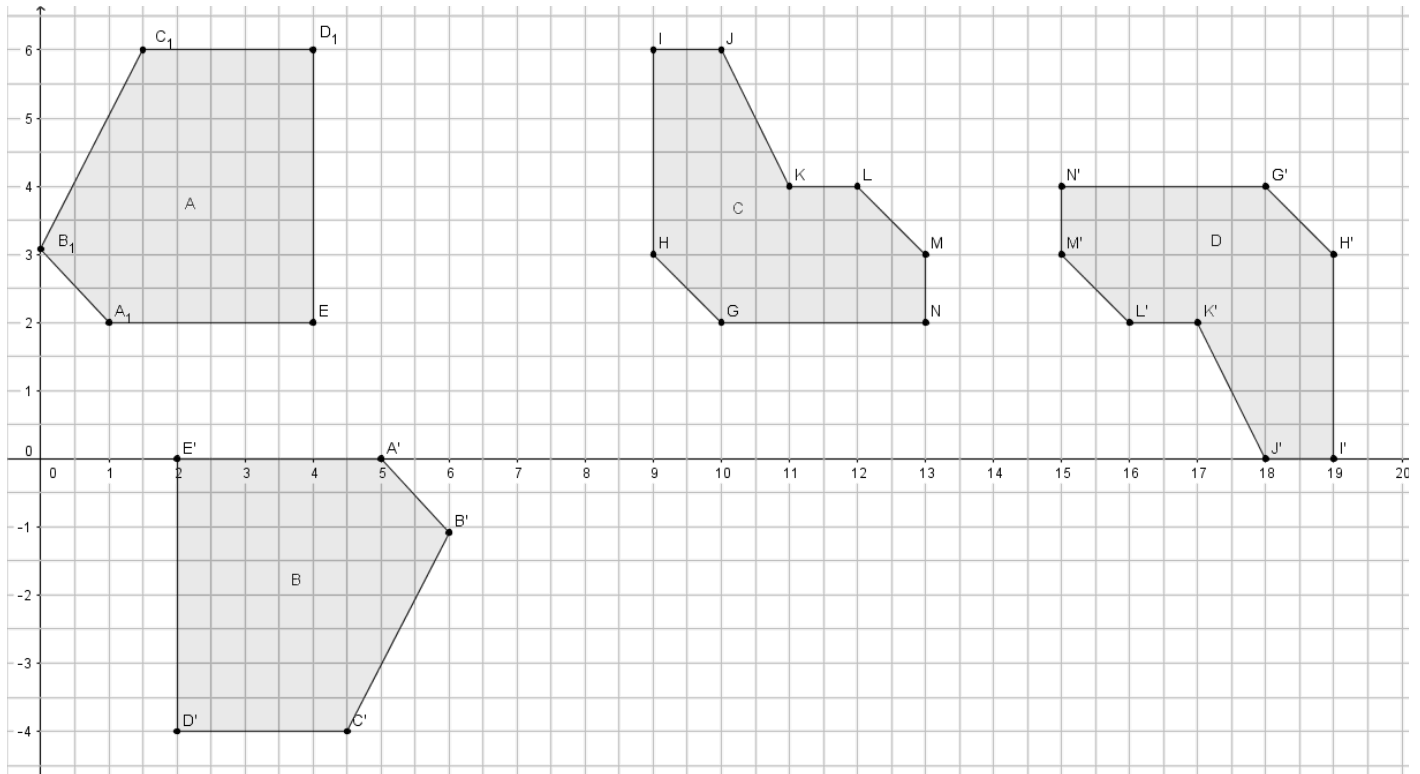
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### Exercises:

1. Draw the figure which has coordinates  $A(0;1)$ ,  $B(2;3)$ ,  $C(2;4)$ ,  $D(4;4)$ ,  $E(4;3)$  and  $F(6;1)$ . Reflect through the origin of the axis.
2. Draw the figure which has coordinates  $A(3;4)$ ,  $B(6;6)$ ,  $C(9;5)$  and  $D(7;4)$ . Reflect through the point  $O(6;3)$
3. The diagram below shows the shapes A, B, C, D. Which is the center point of the reflection?



4. Construct a map to explain the point reflection to your classmates.