## Rotations on the Coordinate Plane Notes

Name

<u>Rotation</u>: a transformation performed by "spinning" the figure around a fixed point (known as the center of rotation). Since the new image and the original image are congruent, it is considered a **rigid transformation**.

## 1) How has the object been rotated around the 2) How has the object been rotated around the origin? origin? A(2, 6) A(2, 6) 5 4 3 2 A' B' B C B С B(2, 2)B(2, 2)1 -6 -5 -4 -3 -2 -1 0 х i 2 3 4 5 6 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 B' Δ, -2 -2--3-C(5, 2) C(5, 2) -3 -4 -5--5 -6-V C' How do the new ordered pairs relate to the How do the new ordered pairs relate to the original ordered pairs? original ordered pairs? 3) How has the object been rotated around the 4) Rotate the object 90° counterclockwise around origin? the origin. What are the new coordinates? 5 A(2, 6) 4 3 2 C B B С 1 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 B(2, 2) x 0 -6 -5 -4 -3 -2 -1 2 3 4 5 6 1 B' CŻ -2 -2 \_3 -3 C(5, 2)-5 -5 -6-A -6-How do the new ordered pairs relate to the original ordered pairs?

## Examples:



Pause the video and try the ones on the back on your own! Then press play and check your answers with a <u>color</u> pen.

1) How has the object been rotated around the origin?	2) Rotate the object 90° counterclockwise around the origin. What are the new coordinates?
How do the new ordered pairs relate to the original ordered pairs? 3) Rotate the object 180° counterclockwise around the origin. What are the new coordinates?	4) Rotate the object 90° clockwise around the origin. What are the new coordinates?
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