

Name _____

ACTIVITY: CONSTRUCTING FIGURES

You will be constructing different types of figures, given one side to start from. Leave the “Algebra” window open and do not delete the axes. Both of these will be helpful to you in this activity. You might want to show the grid as well. Shapes:

parallelogram

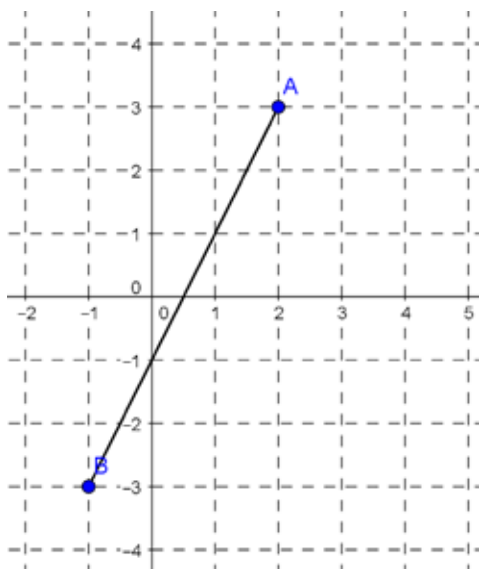
rectangle

square

isosceles triangle

equilateral triangle

Step 1: Plot the following points: $A(2, 3)$ and $B(-1, -3)$. Draw the line segment connecting these two points. Your workspace should look like this:



Step 2: Pick a shape from the list at the top. Using the segment AB as one side of the shape, construct the rest of the shape.

Step 3: List the vertices of the shape.

Step 4: How did you create the shape from the given segment? Explain what you did step by step.

Step 5: Is it possible to make a different (noncongruent) version of the shape from the segment AB ? If so, make another version of the shape and list its vertices. If not, explain why this is not possible.

Step 6: If you move point B , does your shape still have the properties it had before you moved point B ? Can you construct your shape so that it does not lose its properties even after you move point B ?

Step 7: Clear all your work except for segment AB and move on to the next shape.