

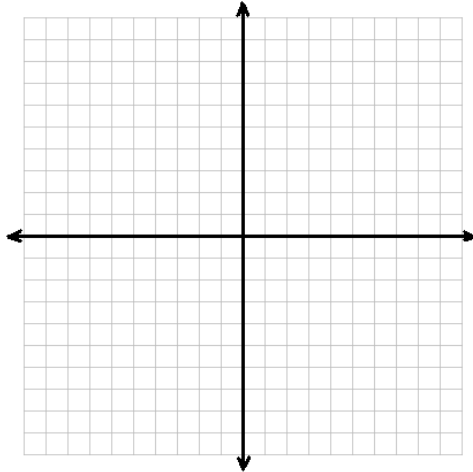
**★ Creating Systems to Bound Regions ★**

**Objective:** You will be able to create a system of equations to bound a specified region.

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**Guided Example:**

A figure in the coordinate plane has the following vertices:  $(-3,8)$ ,  $(-3,-2)$ ,  $(2,8)$ , and  $(7,2)$ . Write a system of inequalities that can be used to bound the shape.

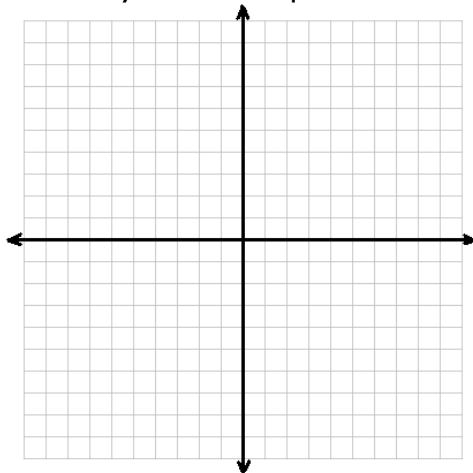


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**Now You Try!**

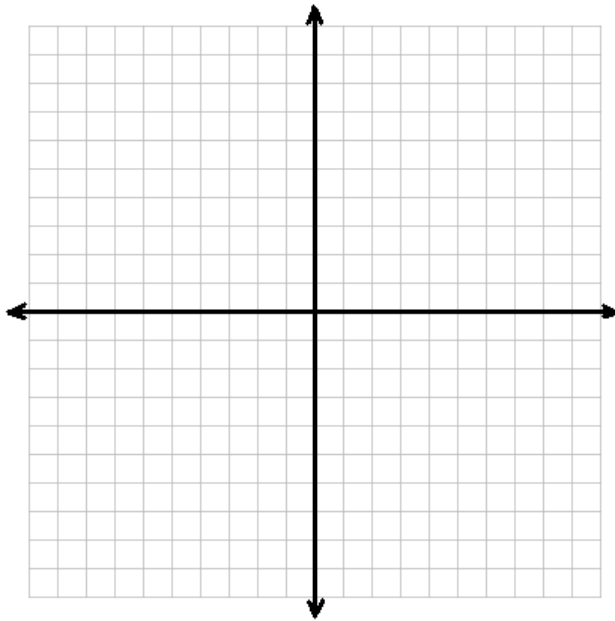
A figure in the coordinate plane has the following vertices:  $(3,8)$ ,  $(-7,8)$ ,  $(-3,-2)$ , and  $(2,3)$ .

Write a system of inequalities that can be used to bound the shape.



Draw any polygon on the coordinate plane, and shade it in. Be sure to identify the system of equations that bounds your polygon! Provide the equations to a partner, and ask your partner for the equations that bound his/her shape. Determine your partner's shape. 😊

**Work for Your Polygon:**



**Work for Your Partner's Polygon:**

