Consider what you know about rotation, a motion that turns a shape about a point. Does it make any difference if a rotation is clockwise (\(\mathcal{C}\)) versus counterclockwise (\(\mathcal{S}\))? If so, when does it matter? Are there any circumstances when it does not matter? And are there any situations when the rotated image lies exactly on the original shape?

Investigate these questions as you rotate the shapes below about the given point. Use tracing paper if needed. Be prepared to share your answers to the questions posed above.

a. \(180^\circ \mathcal{C}\)  
b. \(180^\circ \mathcal{S}\)  
c. \(90^\circ \mathcal{C}\)  
d. \(90^\circ \mathcal{S}\)  
e. \(270^\circ \mathcal{C}\)  
f. \(360^\circ \mathcal{C}\)  
g. \(180^\circ \mathcal{S}\)  
h. \(90^\circ \mathcal{S}\)