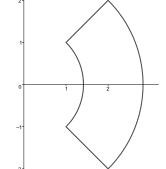
1. For each of the problems below, say whether you expect the given vector field to have positive, negative, or zero circulation counterclockwise around the closed curve C in the figure shown at the right. Two of the segments of C are circular arcs centered at the origin; the other two are radial line segments. You may find it helpful to sketch the vector field.



(a)
$$\vec{\boldsymbol{G}} = x \,\hat{\boldsymbol{\imath}} + y \,\hat{\boldsymbol{\jmath}}$$

(b)
$$\vec{\boldsymbol{H}} = y\,\hat{\boldsymbol{\imath}} - x\,\hat{\boldsymbol{\jmath}}$$