17. Let \( \mathbf{F} \) be the vector field shown in the figure.
(a) If \( C_1 \) is the vertical line segment from \((-3, -3)\) to \((-3, 3)\), determine whether \( \int C_1 \mathbf{F} \cdot d\mathbf{r} \) is positive, negative, or zero.
(b) If \( C_2 \) is the counterclockwise-oriented circle with radius 3 and center the origin, determine whether \( \int C_2 \mathbf{F} \cdot d\mathbf{r} \) is positive, negative, or zero.