1. The equation $4x^2 + 25y^2 - 48x + 150y + 269 = 0$ is known to be the equation of an ellipse. By using the completing the square procedure twice, find the center of the ellipse as well as its major and minor axes.

2. The figure below shows a circle of radius 1 centered at the origin. The point P has x-coordinate $-\frac{2}{3}$. What are the sine, cosine, and tangent of the angle θ equal to?

