1. Find $\frac{\partial z}{\partial x}$ where $z$ is defined implicitly as a function of $x$ and $y$ via the following equation.

$$\sin(y - z + 1) = xyz^2$$
Find the absolute extrema of $f(x, y) = x^2 - 3y^2 + 24y$ on the disk $x^2 + y^2 \leq 25$. 