

Quiz 6

Name: _____

1. Find the corresponding Cartesian equations of the following polar equations, and sketch the graph, labeling appropriately.

(a) $\theta = \frac{\pi}{6}$

(b) $r - \cos \theta = 0$

(d) $r^2 - 2r \cos \theta + r \sin \theta = 0$

2. $r = \sin 2\theta$ is a four-leaved rose. Find the slope of the tangent line at $\theta = \frac{\pi}{6}$, and the tangent line(s) at the pole.