Dartmouth College

Mathematics 13 - Sept. 18

1. Graph the point with polar coordinates $(4, \frac{5\pi}{6})$. Then convert to rectangular coordinates.

2. Convert to polar coordinates: y = 2x.

3. Sketch the region described by the conditions $2 \sec(\theta) < r < 4, -\frac{\pi}{3} < \theta < \frac{\pi}{3}$. Also find inequalities in rectangular coordinates to describe this region.