

Assignment 7 – Parts 1 & 2 – Math 243

Textbook exercises:¹

Section 10.1: 2, 4, 6, 8, 10, 12

Section 10.2: 18, 20 (for these two problems, just find the slopes of the tangent lines, don't sketch anything)

Section 10.3: 18, 24, 26a, 26c

Other exercises:

- (1) Show that the points of the graph of $r = \sin(\theta)$ lie on a circle of radius $1/2$ centered at the point $(0, 1/2)$.
- (2) Plot the set of points whose polar coordinates (r, θ) satisfy $2 \leq r \leq 3$ and $\pi/4 \leq \theta \leq 3\pi/4$.

¹From Hass, Weir, and Thomas' *University calculus: alternate edition*