

## Exam III - Formula Sheet

The slope of the line tangent to a polar curve is given by

$$m = \frac{f(\theta) \cos \theta + f'(\theta) \sin \theta}{-f(\theta) \sin \theta + f'(\theta) \cos \theta}.$$

Area inside a polar curve:

$$A = \frac{1}{2} \int_{\alpha}^{\beta} [f(\theta)]^2 d\theta.$$