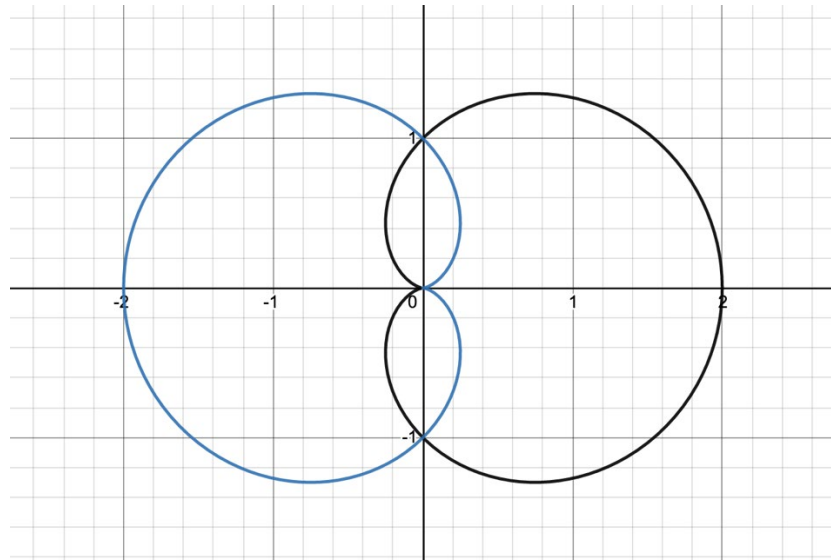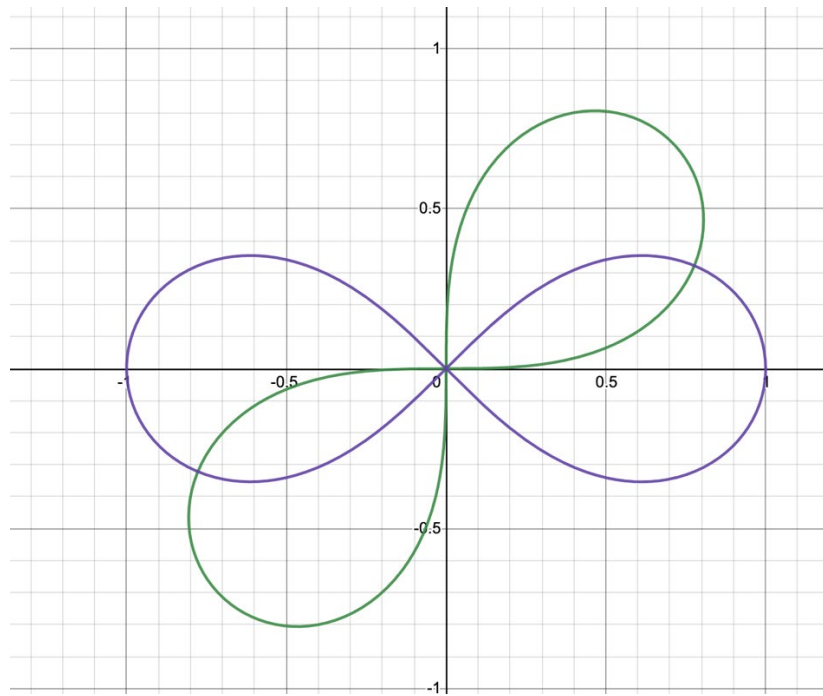# Area Between Two Polar Curves

Determine the area that lies inside both polar curves.
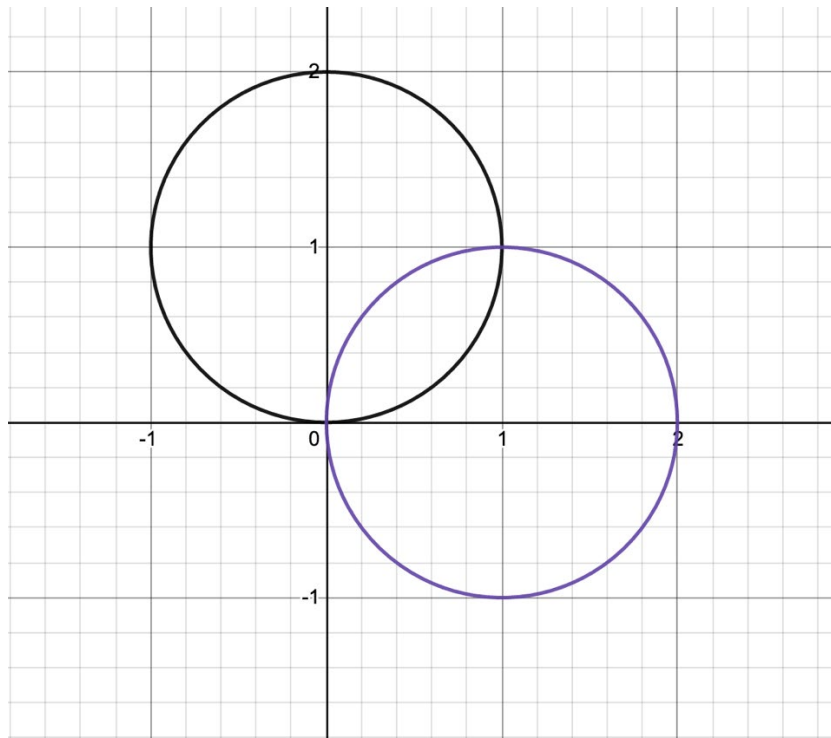
$$r = 1 + \cos(\theta) \text{ and } r = 1 - \cos(\theta)$$

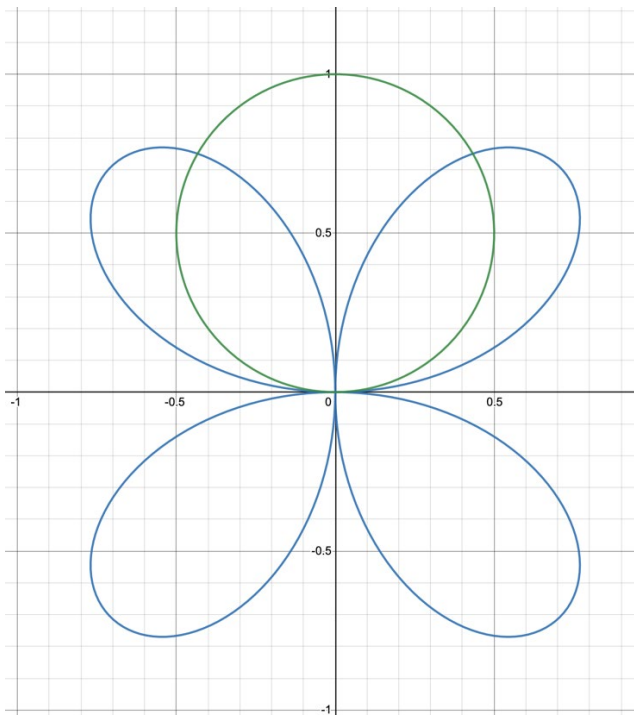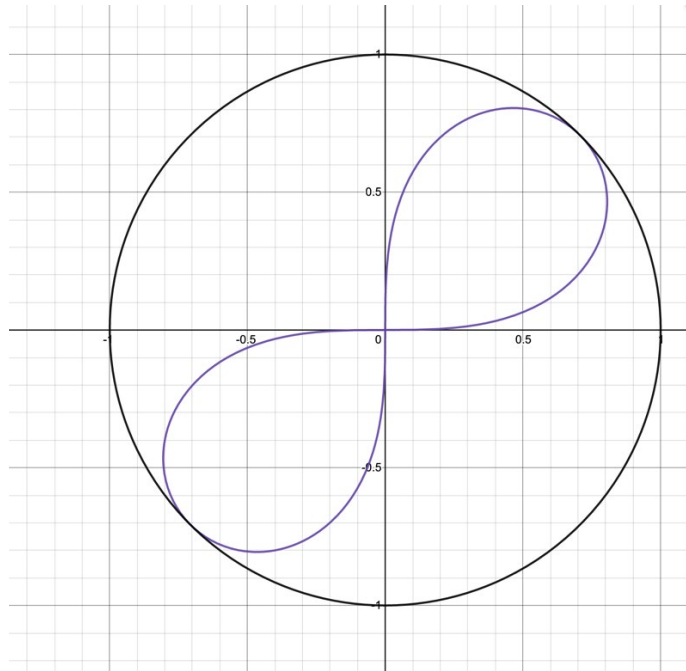$$r^2 = \sin(2\theta) \text{ and } r^2 = \cos(2\theta)$$

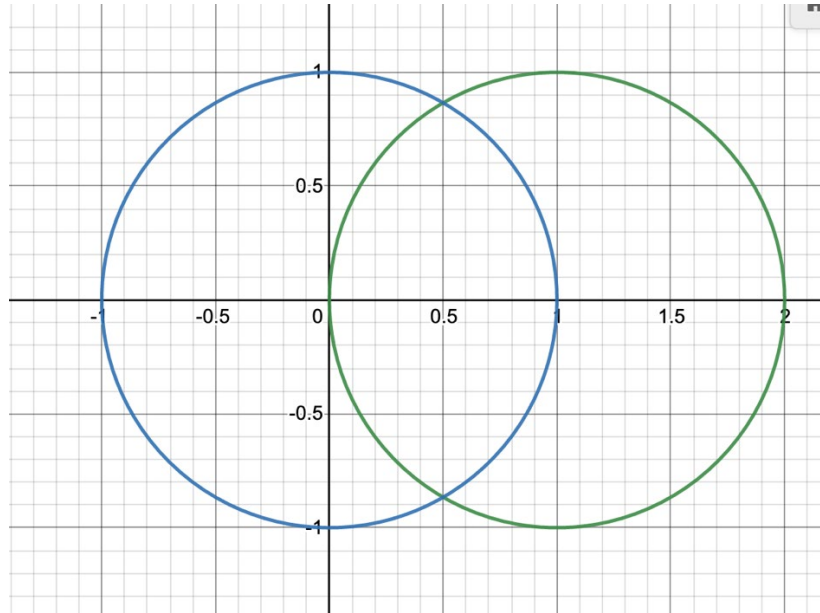$r = 2sin(\theta)$ and $r = 2cos(\theta)$

$r = sin(2\theta)$ and $r = sin(\theta)$

$r^2 = \sin(2\theta)$ and $r = 1$
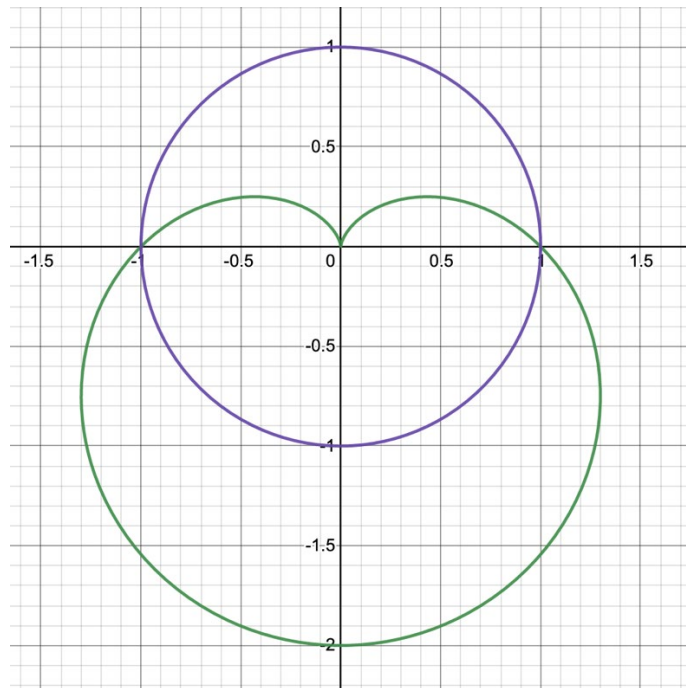
Determine the area that lies inside the 1ˢᵗ curve, but outside the second curve.
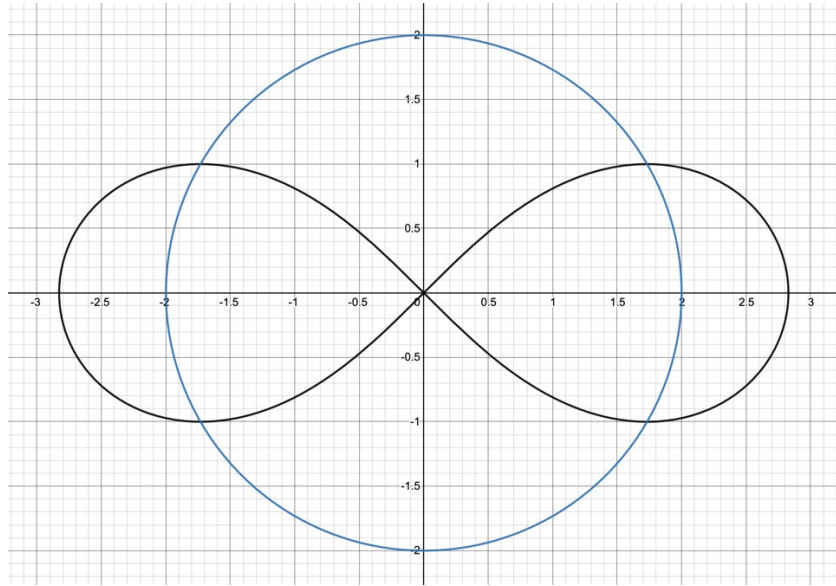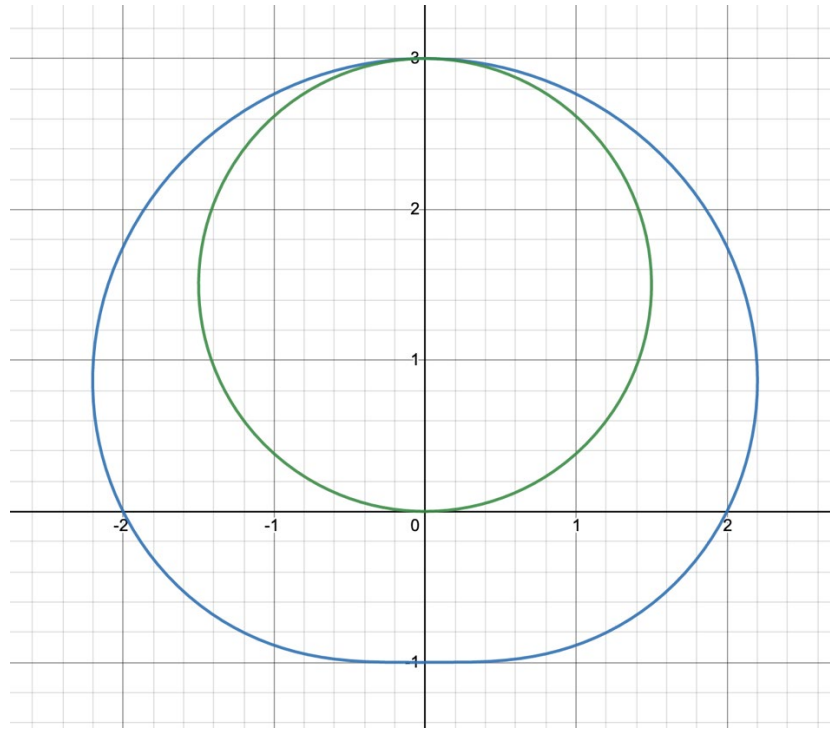
$$r = 2cos(\theta) \text{ and } r = 1$$

$r = 1 - sin(\theta)$ and $r = 1$

$$r^2 = 8cos(2\theta) \text{ and } r = 2$$

$r = 2 + sin(\theta)$ and $r = 3sin(\theta)$

$r = 3cos(\theta)$ and $r = 1 + cos(\theta)$