

Common Polar Curves (continued)

p. 555 - 556 (10.3)

38b

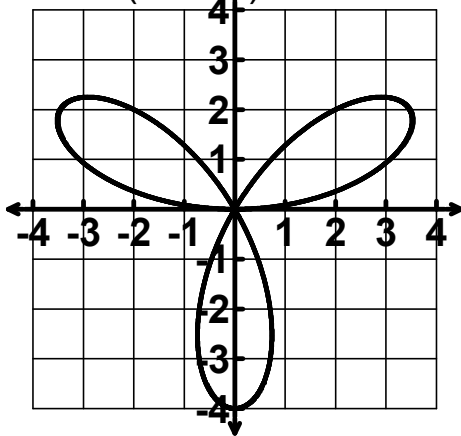
Roses $r = a \sin(n\theta)$, n odd

$$0 \leq \theta \leq \pi$$

n petals

y -axis symmetry

$$r = 4 \sin(3\theta)$$



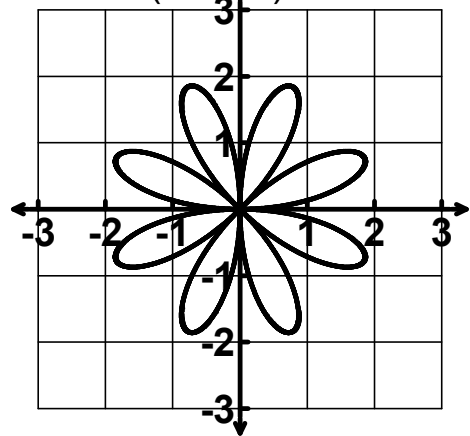
$r = a \sin(n\theta)$, n even

$$0 \leq \theta \leq 2\pi$$

$2n$ petals

x -axis and y -axis symmetry

$$r = 2 \sin(4\theta)$$



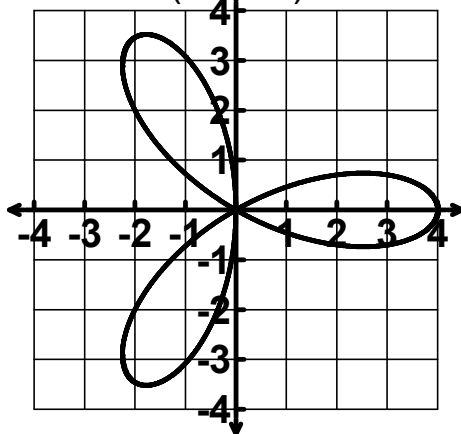
$r = a \cos(n\theta)$, n odd

$$0 \leq \theta \leq \pi$$

n petals

x -axis symmetry

$$r = 4 \cos(3\theta)$$



$r = a \cos(n\theta)$, n even

$$0 \leq \theta \leq 2\pi$$

$2n$ petals

x -axis and y -axis symmetry

$$r = 2 \cos(4\theta)$$

