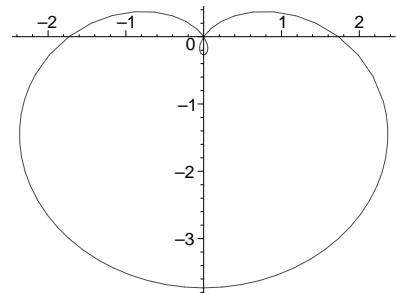
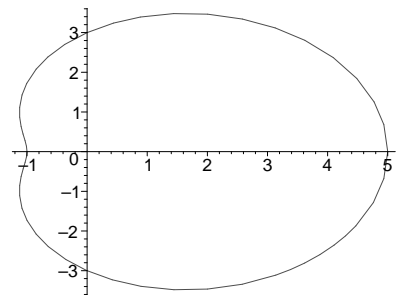


1. Find the area of the inner loop of the limaçon $r = \sqrt{3} - 2 \sin(\theta)$



2. Find the area inside the outer loop and outside the inner loop of the limaçon $r = \sqrt{3} - 2 \sin(\theta)$

3. Find the area inside the limaçon $r = 3 + 2 \cos(\theta)$



4. Find the area inside the limaçon $r = 3 + 2 \cos(\theta)$ and outside the circle $r = 2$

