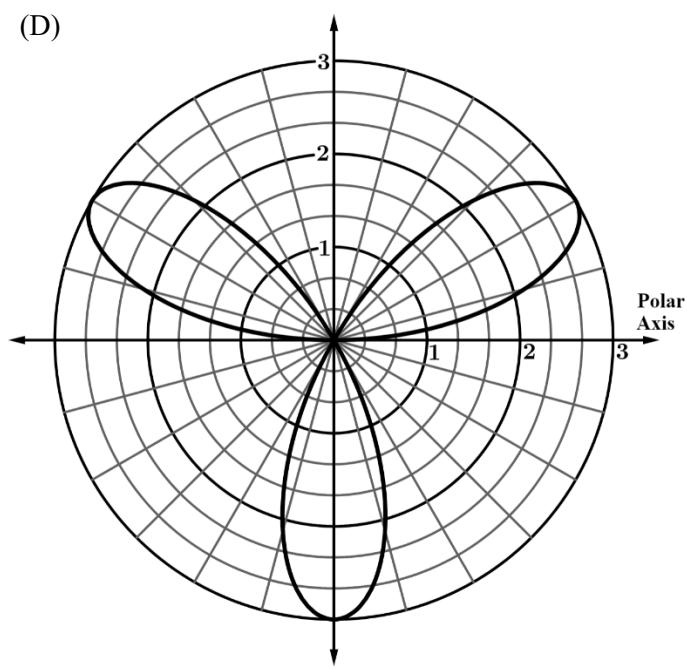
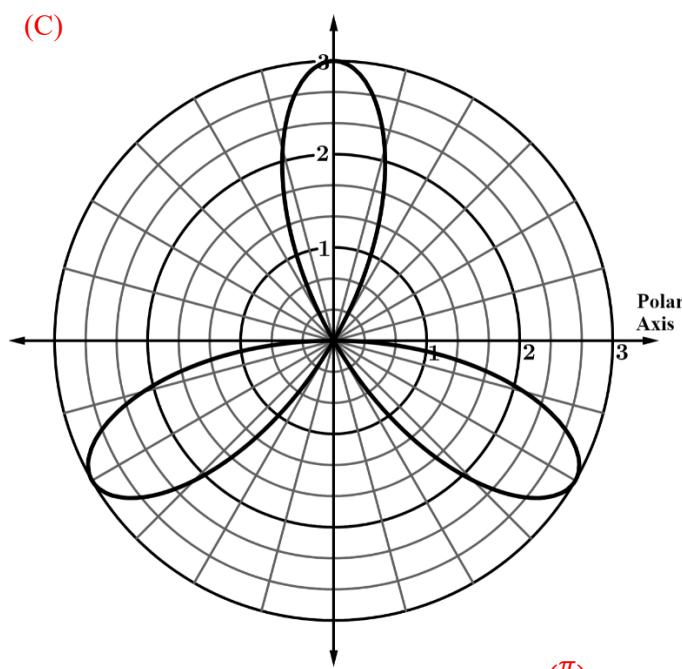
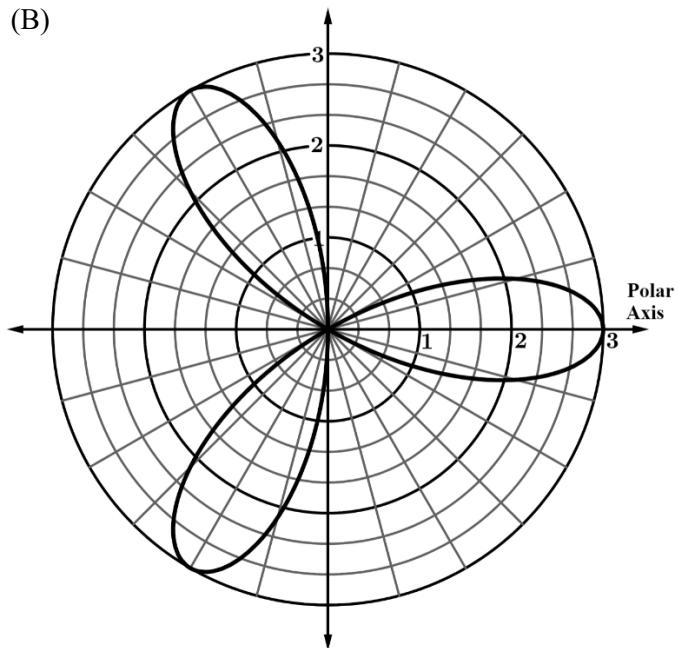
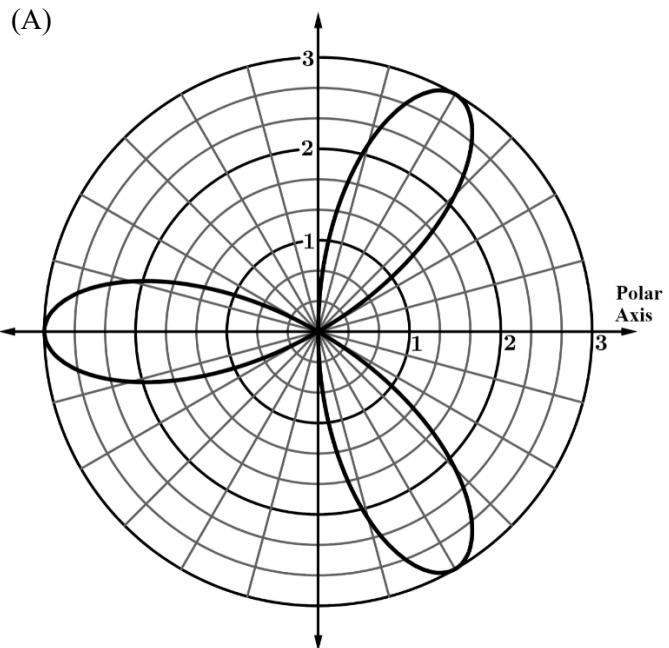
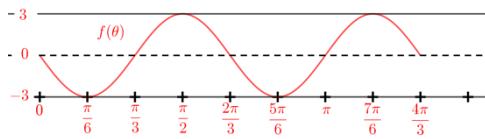


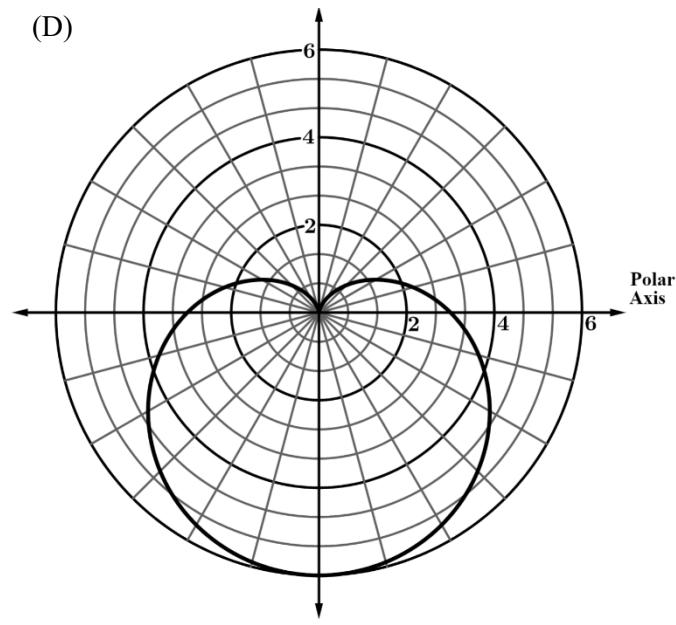
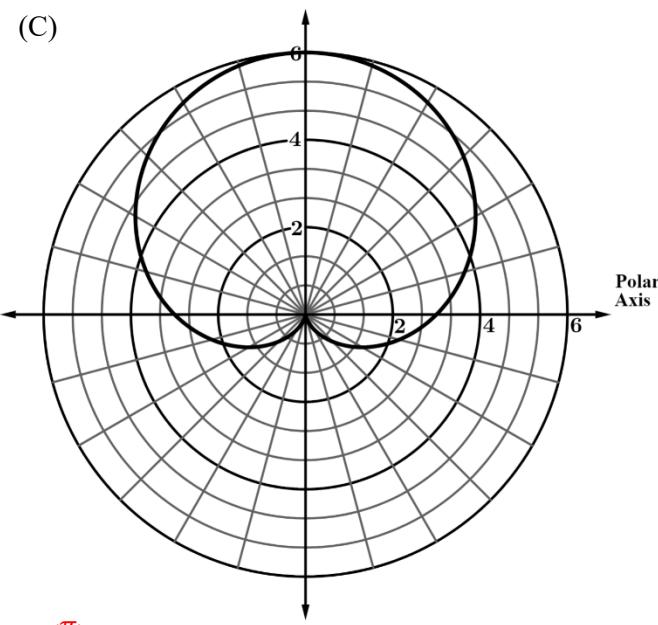
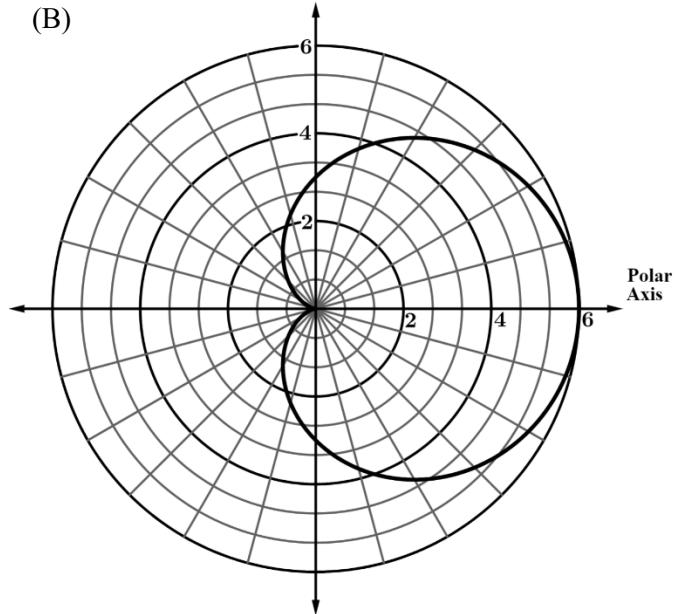
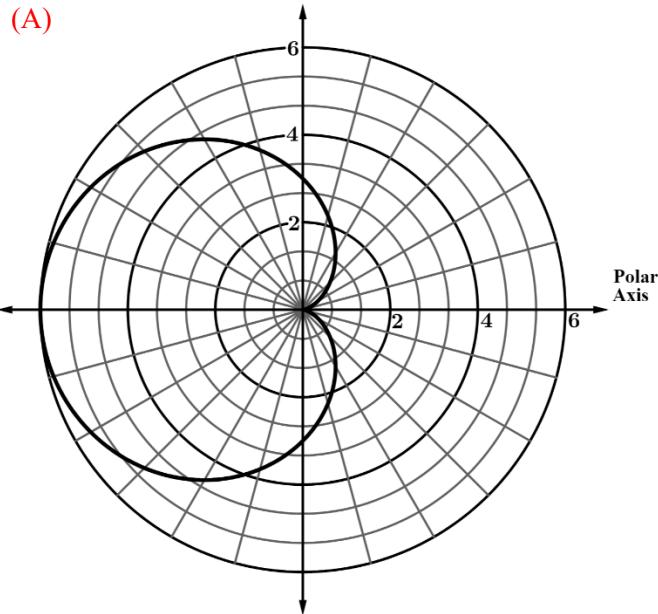
1. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = -3 \sin(3\theta)$, in the polar coordinate system for $0 \leq \theta \leq 2\pi$?



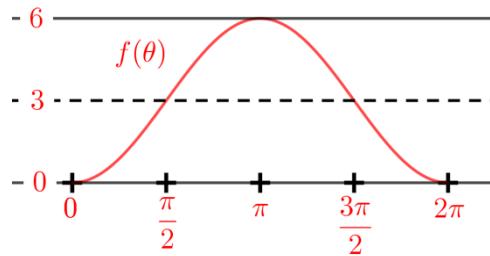
$f(0) = 0$ which eliminates choice (B). $f\left(\frac{\pi}{2}\right) = 3$ which eliminates (A) and (D).



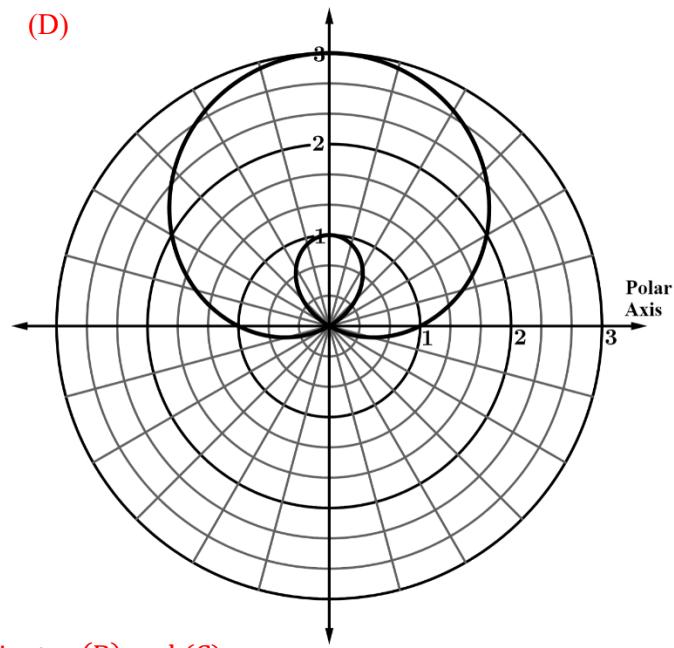
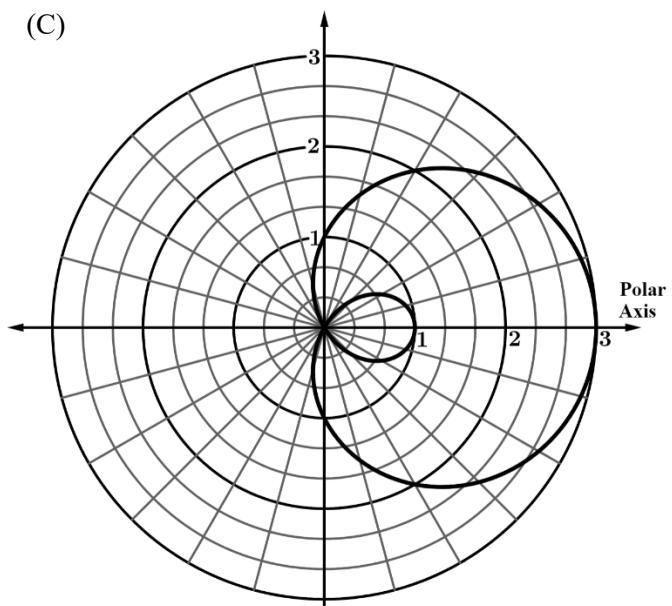
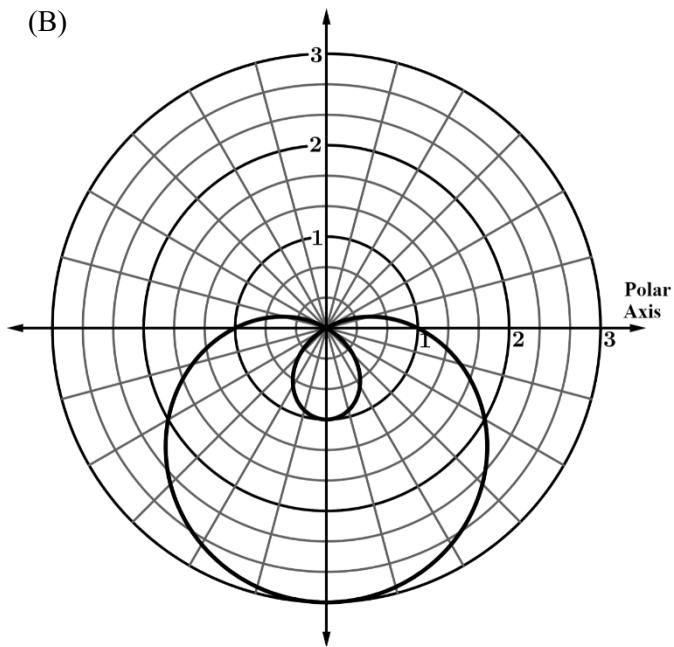
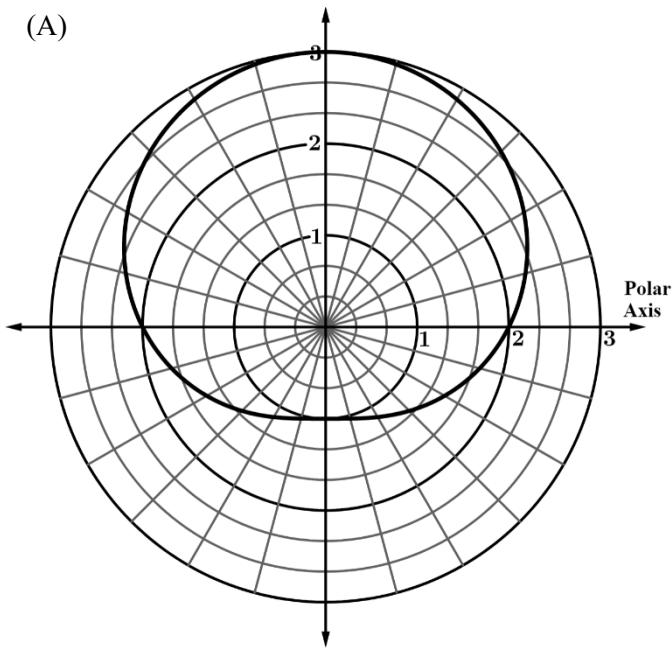
2. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = 3 - 3\cos\theta$, in the polar coordinate system for $0 \leq \theta \leq 2\pi$?



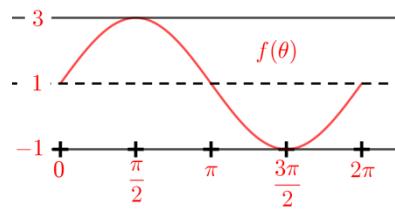
$f\left(\frac{\pi}{2}\right) = 3$ which eliminates (C) and (D). $f(\pi) = 6$ which eliminates (B).



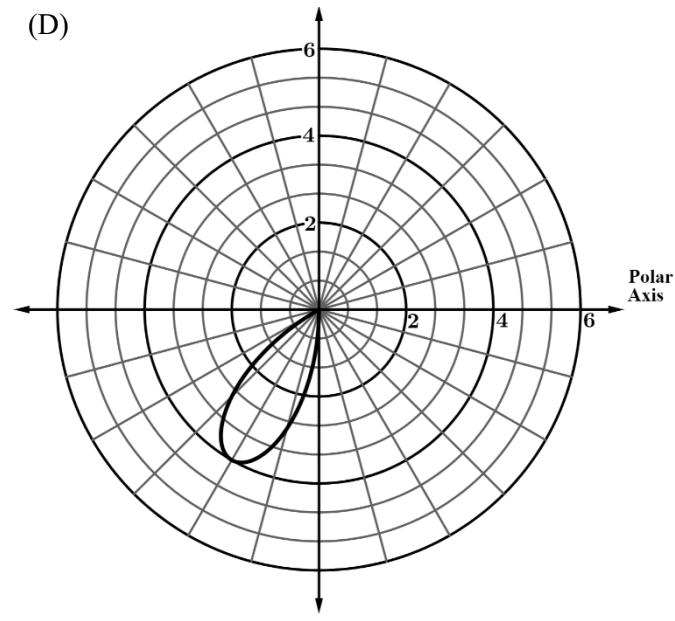
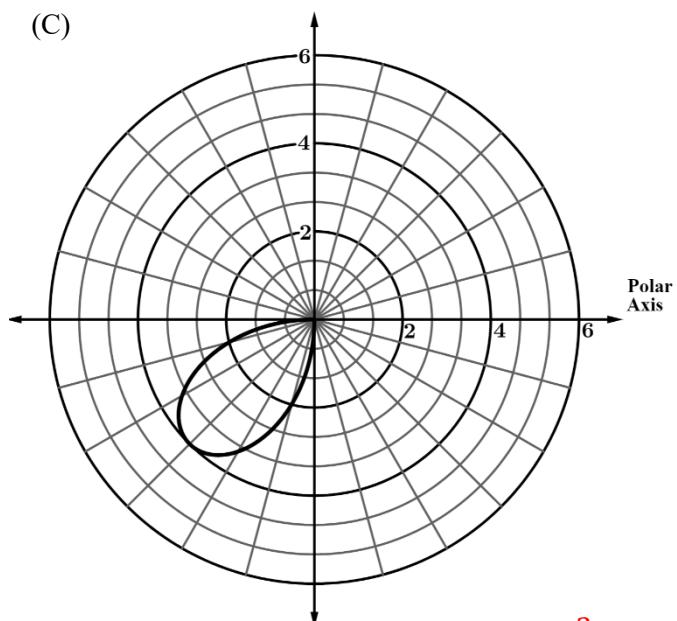
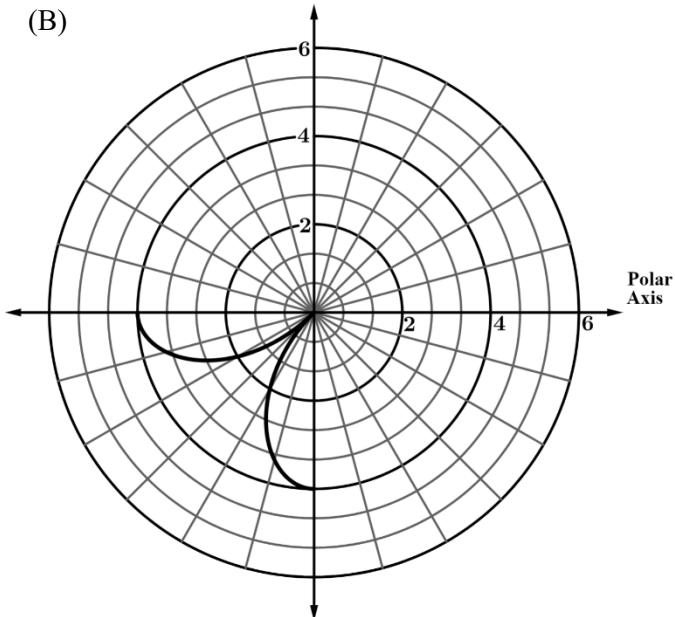
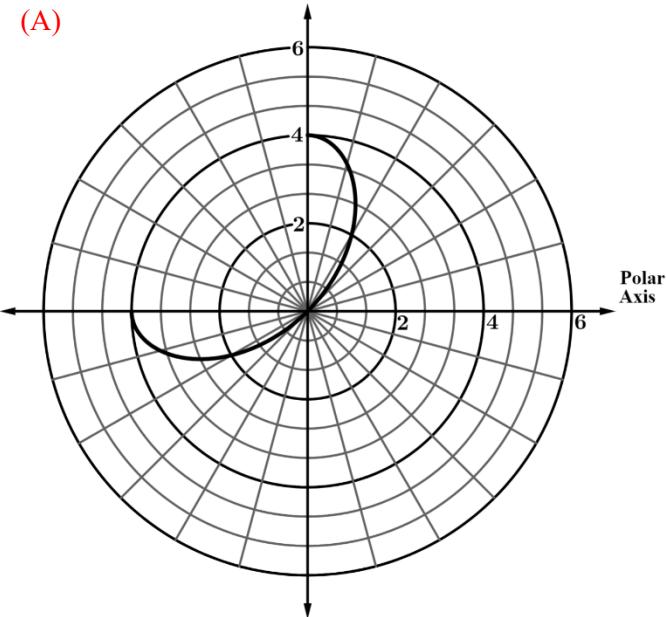
3. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = 1 + 2 \sin \theta$, in the polar coordinate system for $0 \leq \theta \leq 2\pi$?



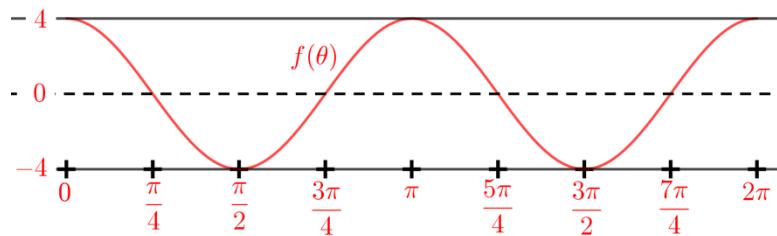
$f(0) = 1$ which eliminates (A). $f\left(\frac{\pi}{2}\right) = 3$ which eliminates (B) and (C).



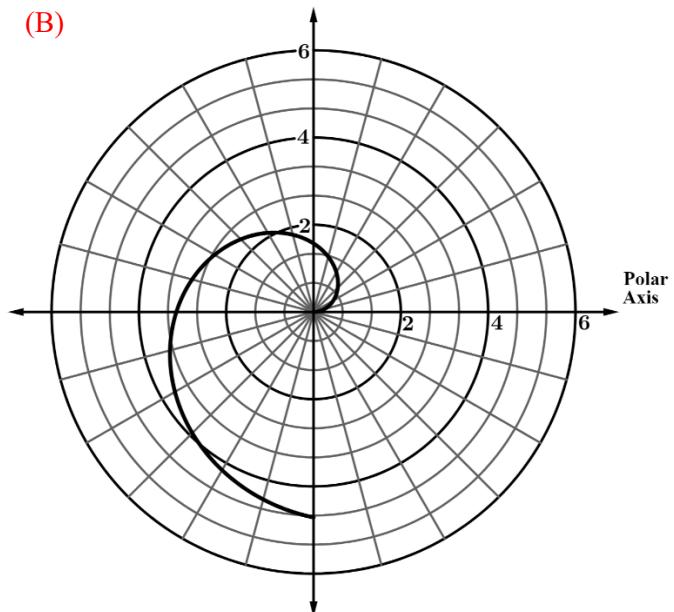
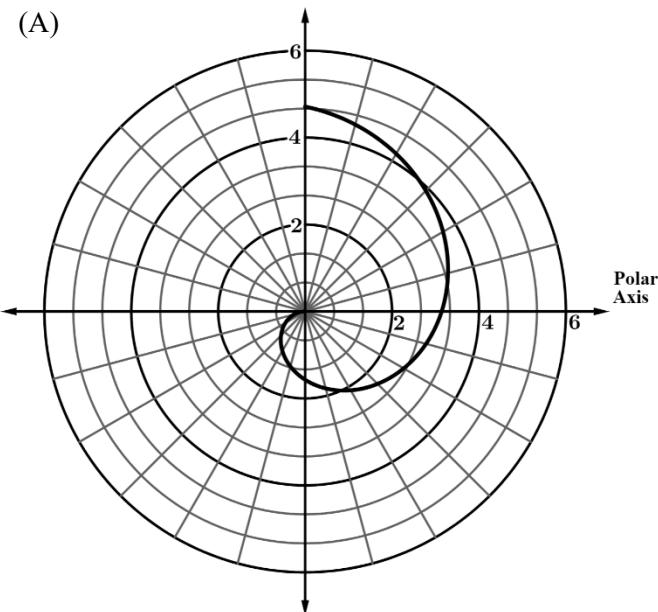
4. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = 4 \cos(2\theta)$, in the polar coordinate system for $\pi \leq \theta \leq \frac{3\pi}{2}$?



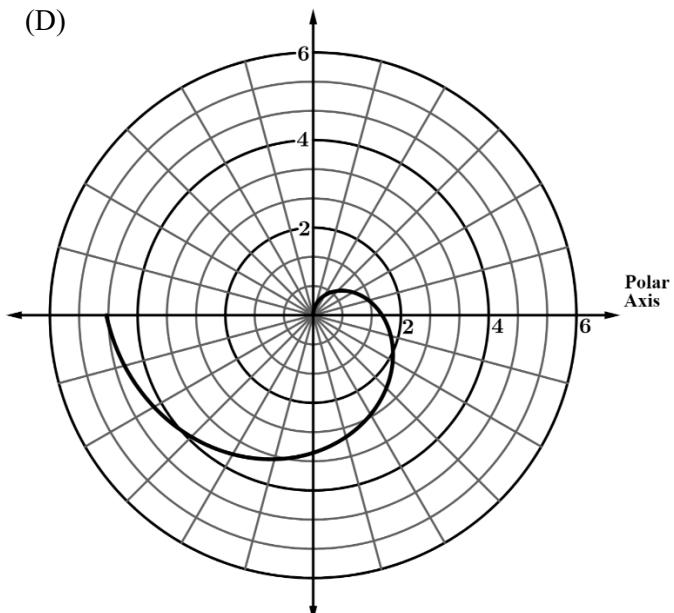
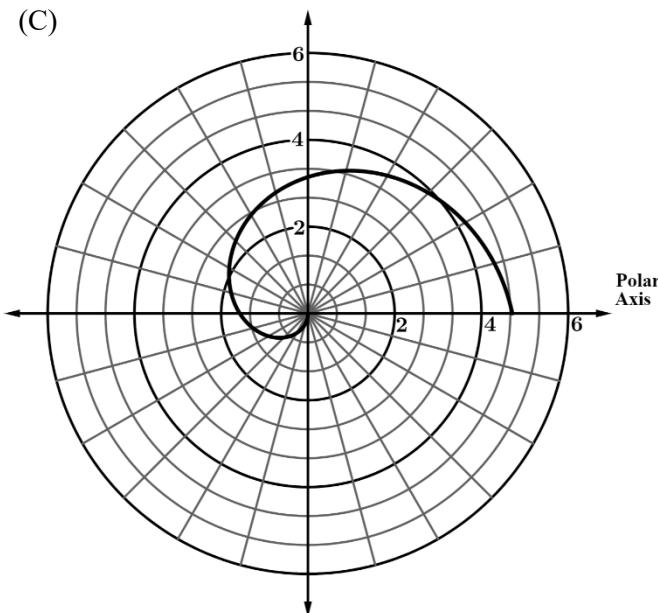
$f(\pi) = 4$ which eliminates (C) and (D). $f\left(\frac{3\pi}{2}\right) = -4$ which eliminates (B).



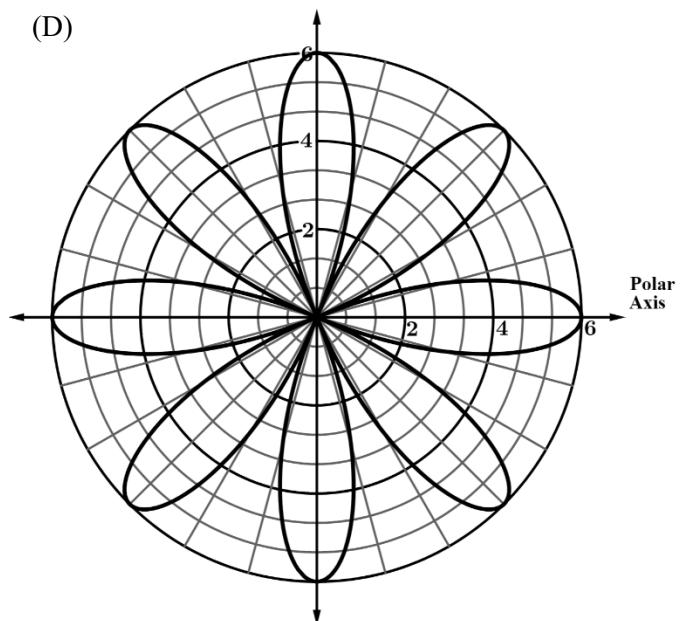
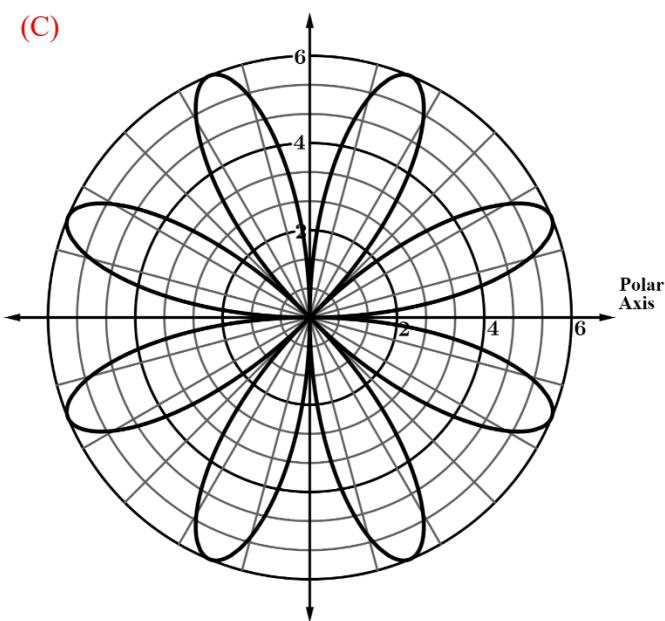
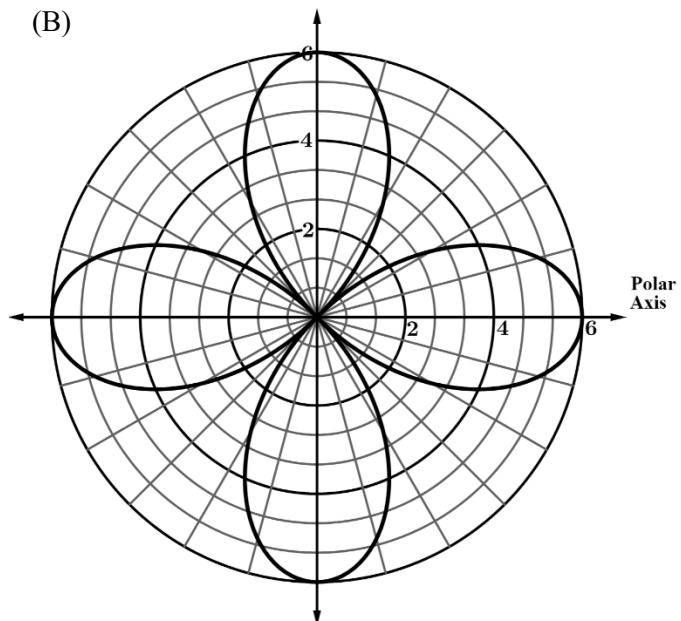
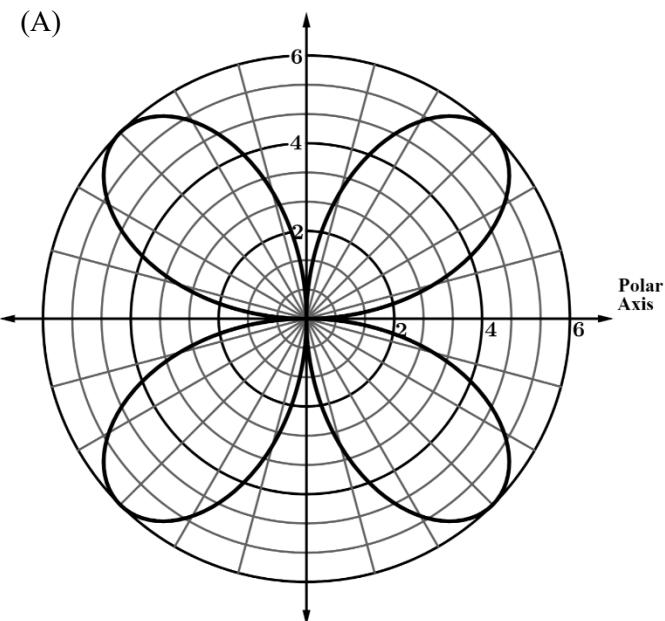
5. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = \theta$, in the polar coordinate system for $0 \leq \theta \leq \frac{3\pi}{2}$?



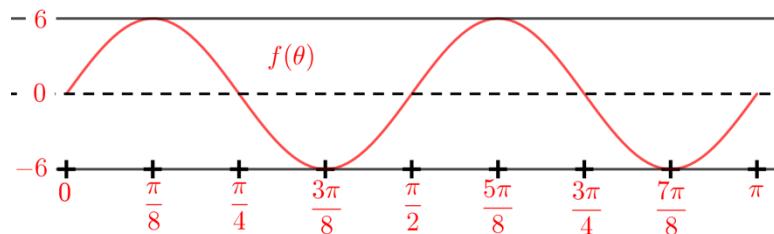
$$f\left(\frac{\pi}{2}\right) = \frac{\pi}{2} \approx 1.5 \text{ which eliminates (A), (C) and (D).}$$



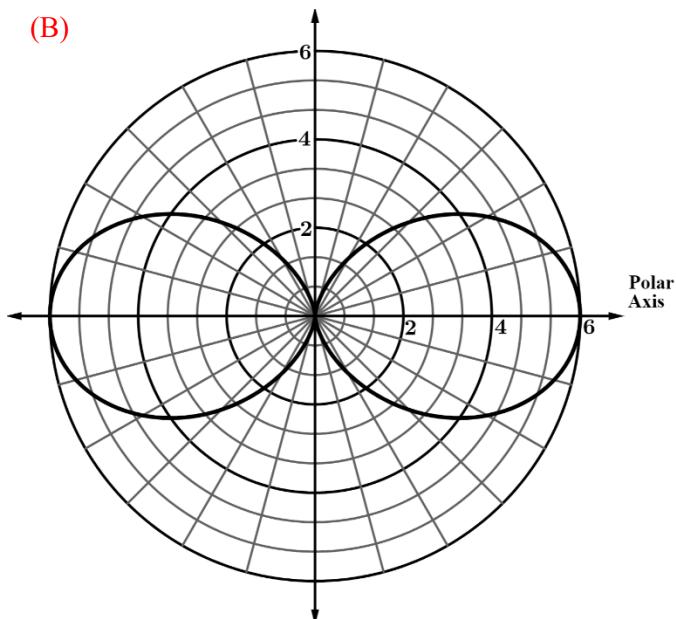
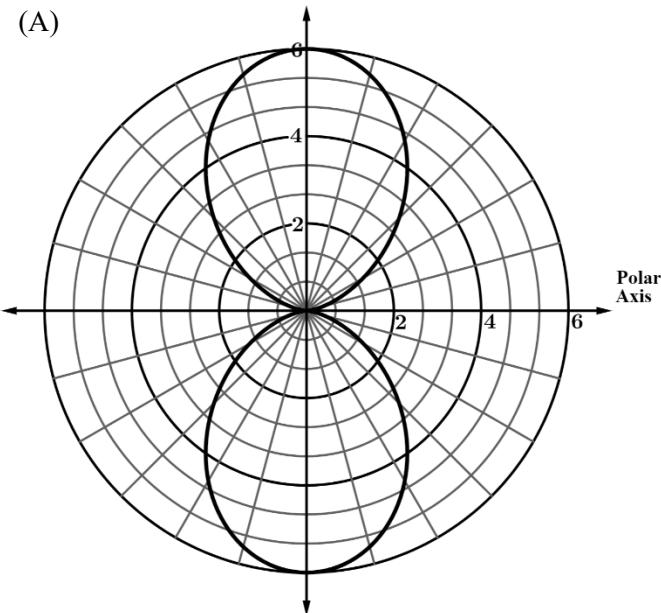
6. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = 6\sin(4\theta)$, in the polar coordinate system for $0 \leq \theta \leq 2\pi$?



$f\left(\frac{\pi}{8}\right) = 6$ which eliminates (A), (B) and (D).



7. Which of the following is the graph of the polar function $r = f(\theta)$, where $f(\theta) = 6 \cos^2 \theta$, in the polar coordinate system for $0 \leq \theta \leq 2\pi$?



$f(0) = 6$ which eliminates (A), (C) and (D).

