# Polar Questions

1. A particle moves in a plane so that its position at any time , is given by the polar equation . When does the particle’s distance from the origin change from decreasing to increasing?
   1. only
   2. only
   3. only
   4. and
   5. and
2. The area of the region enclosed by the polar curve for is
   1. 1
3. The area of one leaf of the rose is
4. The area outside and inside is
5. The total area of the region enclosed by the polar graph of is
6. The area of the region enclosed by the polar curve for equals
   1. 1
7. Which of the following gives the area of the region enclosed by the graph of the polar curve ?
8. The area of the region enclosed by the polar curve is
   1. 1
   2. 2
9. If the function is continuous and nonnegative for , then the area enclosed by the polar curve and the lines and is given by
10. Which of the following integrals gives the total area of the region shared by both polar curves and