

Math 1497 – Calculus II Spring 2022 – Homework 9

Week 11: Apr. 4 - Apr. 8, 2022

pg. 727, #63.

Find the slope of the tangent to $r = 2(1 - \sin \theta)$ at $(2, 0)$, $(3, 7\pi/6)$ and $(4, 3\pi/2)$.

pg. 735#7, 9, 15, 19, 37 and 41. Find the area of the following polar regions(s)

7. Interior of $r = 6 \sin \theta$,
9. One petal of $r = 2 \cos 3\theta$
15. Interior of $r = 4 + \sin \theta$
19. Inner loop of $r = 1 + 2 \cos \theta$
37. Common area of $r = 4 \sin 2\theta$, $r = 2$
43. Inside $r = 2 \cos \theta$ and outside $r = 1$

Due: Friday Apr. 8, 2022 by 4:30pm