

CALCULUS 2 - FALL 2017 - HOMEWORK 6

1,2) Find the area in the first quadrant bounded by $r = a\theta^2$.

3,4) Find the length of one arc of the cycloid $x = a(\theta - \sin\theta)$, $y = a(1 - \cos\theta)$.

5,6) Write an expression for the surface area of the shape generated by rotating the cycloid in the preceding problem around the x-axis.

Bonus: Find the area in (5,6)