

More Fun with Polar Coordinates

1. Find the slope of the tangent to the curve at the given value of θ :
 - a. $r = 3 \sin\theta, \theta = \pi/4$
 - b. $r = 2 - 2 \cos\theta, \theta = \pi/2$
2. Find the arc length of:
 - a. $r = 3 \sin\theta$
 - b. $r = 2 - 2 \cos\theta$