4.4 Parametrically Defined Circles and Lines

AP Precalculus Name: _____ **CA #2**

1. Find the parametric equations for the circle with the center at $(2, -1)$ and a radius of 6.

2. Find the parameterization for the linear path of a particle that travels from the point $(-1, 3)$ to the point $(3, -5)$.

3. Which of the following could be the equation of the circle with the parametric equations $x(t) = 4 + 6\cos t$ and $y(t) = -1 + 6\sin t$?

   (A) $(x-4)^2 + (y+1)^2 = 6$

   (B) $(x-4)^2 + (y+1)^2 = 36$

   (C) $(x-4)^2 + (y-1)^2 = 6$

   (D) $(x+4)^2 + (y+1)^2 = 36$

4. Find the parametric equations for the line with a slope of $\frac{5}{7}$ and initial point $(1, 2)$.

5. Create a table of numerical values for a line given by the parameterization $x(t) = -7 + 2t$ and $y(t) = 3 + 3t$ for $0 \le t \le 2$.

t	0	1	2
x			
y			

Answers to 4.4 CA #2

1. $x(t) = 2 + 6\cos t$
   $y(t) = -1 + 6\sin t$

2. $x(t) = -1 + 4t$
   $y(t) = 3 - 8t$

3. B

4. $x(t) = 1 + 7t$
   $y(t) = 2 + 5t$

5.

-7	-5	-3
3	6	9