

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Give parametric equations $x(t)$, $y(t)$, $z(t)$ and bounds for t that produce a path from $(3, -2, 0)$ to $(4, 7, 1)$.

Direction $\langle 1, 9, 1 \rangle$

$$x(t) = 3 + t$$

$$y(t) = -2 + 9t$$

$$z(t) = t$$

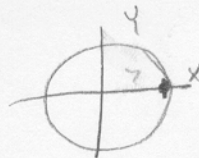
Great

for $0 \leq t \leq 1$

2. Give parametric equations $x(t)$, $y(t)$, $z(t)$ and bounds for t that produce a circle of radius 7 centered at the origin in the plane $z = 2$ beginning at $(7, 0, 2)$.



5 for circle



$$x(t) = 7 \cos t$$

$$y(t) = 7 \sin t$$

$$z(t) = 2$$

$$0 \leq t \leq 2\pi$$

Excellent