

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

1. Give parametric equations $x(t)$, $y(t)$, and $z(t)$, along with bounds for t , for the line segment from $(1,3,8)$ to $(5,9,4)$.

$$\underline{x(t) = 1 + 4t}$$

$$\underline{y(t) = 3 + 6t}$$

$$\underline{z(t) = 8 - 4t}$$

$$\underline{0 \leq t \leq 1}$$

↑
 $(1, 3, 8)$

↑
 $(5, 9, 4)$

Good.

2. Give parametric equations $x(t)$ and $y(t)$ and bounds for t for the third quadrant portion of a circle with radius 2, centered at the origin, and traversed counterclockwise.

$$\underline{x = 2 \cos t}$$

$$\underline{y = 2 \sin t}$$

Great

for $\underline{\pi \leq t < \frac{3\pi}{2}}$

