(Easier) Practice Quiz 1 **Calc 1** **10/20/23**

1. Give parametric equations $x(t), y(t), z(t)$ and bounds for t that produce a path from $(3, 0, 1)$ to $(5, 7, 1)$.

   $x(t) = 3 + 2t$
   $y(t) = 7t$
   $z(t) = 1$
   for $0 \leq t \leq 1$

2. Give parametric equations $x(t), y(t), z(t)$ and bounds for t that produce a unit circle centered at the origin in the plane $z = 0$ beginning at $(1, 0, 0)$.

   $x(t) = \cos t$
   $y(t) = \sin t$
   $z(t) = 0$
   for $0 \leq t \leq 2\pi$

(Harder) Practice Quiz 1 **Calc 1** **Due 10/20/23**

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

   $x(t) = -2 + (a + 2)t$
   $y(t) = 7 + (b-7)t$
   $z(t) = 1 + (c-1)t$
   for $0 \leq t \leq 1$

2. Give parametric equations $x(t), y(t), z(t)$ and bounds for t that produce an arc of a circle centered at $(0, 0, 3)$ in the plane $z = 3$ of radius a beginning at $(0, a, 3)$ and continuing counterclockwise through n quadrants.

   $x(t) = a \cos t$
   $y(t) = a \sin t$
   $z(t) = 3$
   for $\pi/2 \leq t \leq \pi/2 + n\pi/2$