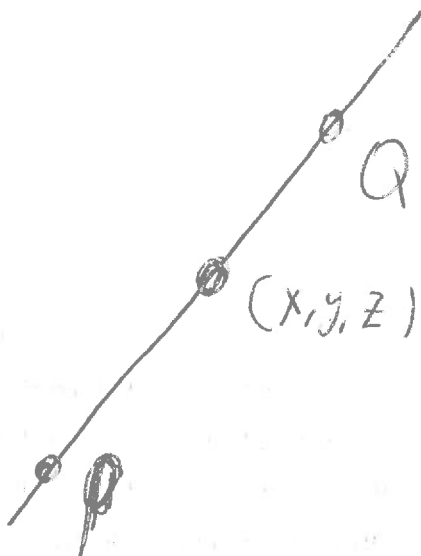**No calculators, cell phones, computers, notes, etc.**

Circle your answer. Make your work correct, complete and coherent.

The quiz is worth 5 points. The solutions will be posted on my website later today.

Quiz 4, September 11, 2019

Find parametric equations for the line through $P = (-2, 0, 3)$ and $Q = (3, 5, -2)$.

If (x, y, z) is on the line then

$$\overrightarrow{P(x,y,z)} = t\,\overrightarrow{PQ} \quad \text{for some } t$$

$$(x+2)\vec{\imath} + y\vec{\jmath} + (z-3)\vec{k} = t\left(5\vec{\imath} + 5\vec{\jmath} - 5\vec{k}\right)$$

$$\boxed{\begin{aligned} X &= 5t - 2 \\ y &= 5t \\ z &= -5t + 3 \end{aligned}}$$

when $t = 0$ the point is $(-2, 0, 3)$; which is P

when $t = 1$, the point is $(3, 5, -2) = Q$.