

Please PRINT your name _____

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

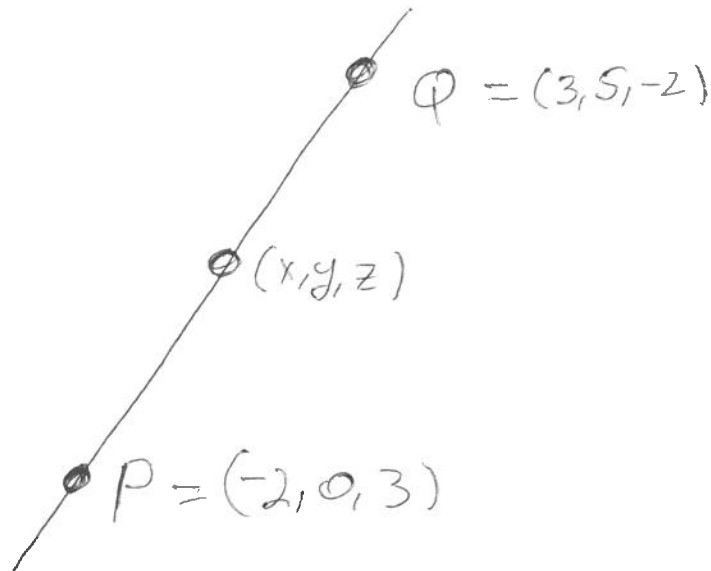
Circle your answer. Make your work correct, complete and coherent.

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

Quiz ~~4~~, January 29, 2020

5 Feb 3

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

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

$$(x+2)\vec{i} + y\vec{j} + (z-3)\vec{k} = t(5\vec{i} + 5\vec{j} - 5\vec{k})$$

$$x = 5t - 2$$

$$y = 5t$$

$$z = -5t + 3$$

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

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