

Quiz 1

Key

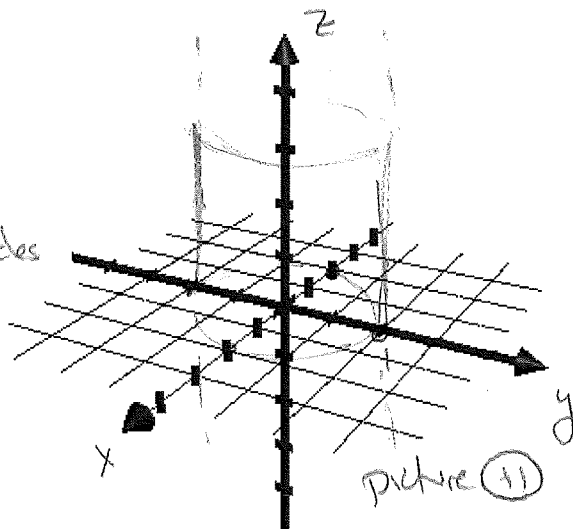
This is a two-stage quiz. During the first stage, use your knowledge & calculator to take this quiz. You have 15 min. In the second stage. You are now welcome to use your books, notes, and students in the class to retake the same quiz. You have 15 min. to complete the quiz and to build one solution to be turned in.

Show *all* your work.

Reasonable supporting work must be shown for any partial credit.

1. Consider the set of axes to the right.

- (a) [1] Label the x , y , and z axis.
recall arrows corr. to positive sides
- (b) [3] Sketch the region in \mathbb{R}^3 represented by $x^2 + y^2 = 4$.
 (1) circle centered at $(0,0)$
 (1.5) radius = 2
 (1.5) no z -coord \Rightarrow cylinder



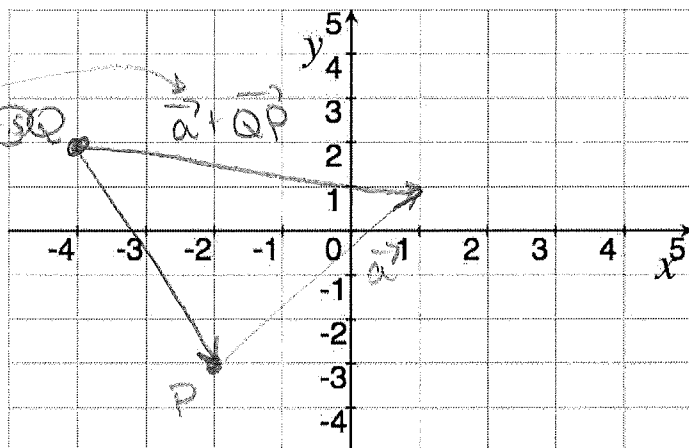
2. Let $\vec{a} = \langle 3, 4 \rangle$, P be point $(-2, -3)$, and Q be point $(-4, 2)$.

- (a) [2] Draw \vec{QP} direction (1.5) endpoints (1)
- (b) [2] Draw $\vec{a} + \vec{QP}$ tip/trail (1.5) draw (1) start (1.5)
- (c) [2] Find the length of QP

$$\begin{aligned} \|\vec{QP}\| &= \sqrt{5^2 + 2^2} \\ &= \sqrt{25 + 4} \\ &= \sqrt{29} \end{aligned}$$

or

$$\begin{aligned} \|\vec{QP}\| &= \sqrt{(-2 - (-4))^2 + (-3 - 2)^2} \\ &= \sqrt{2^2 + 5^2} \\ &= \sqrt{29} \end{aligned}$$



} formula (1.5)
used right (1)
got it (1.5)

partial using \vec{QP} 1.5

3D Achy #1
Web 12-1-18

Vectors Achy #1
Web 12-2-18

Web 12-2-18