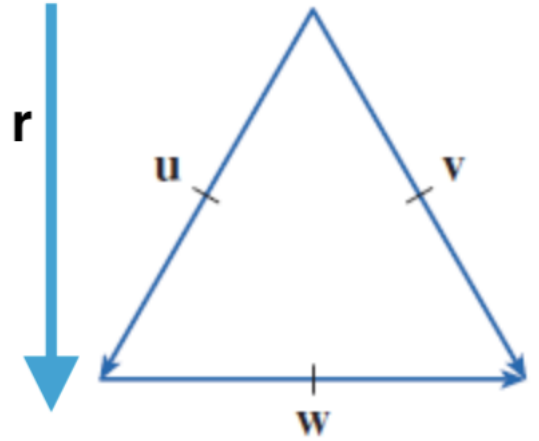# Quiz 2

This is a two-stage quiz. During the first stage, use your knowledge & calculator. 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 the remainder of the quiz time to write one solution (with everyones name on it!!!) to be turned in for the group.

1. Consider the vectors shown on the right.
   Assume that $\vec{r}$, $\vec{u}$, $\vec{v}$, and $\vec{w}$ all have length 2
   and are in the xy plane inside 3 dimesions.

   (a) [2] Find $\vec{r} \cdot \vec{w}$

   (b) [2] Find $\vec{u} \cdot \vec{v}$

   (c) [2] Find $||\vec{u} \times \vec{v}||$

2. Consider the points $P(1, 2, 3)$ and $Q(1, 0, 0)$.

   (a) [1] Label the positive x, y, and z axis
       and then sketch the line.

   (b) [3] Find an equation for the line
       passing through P and Q.

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