

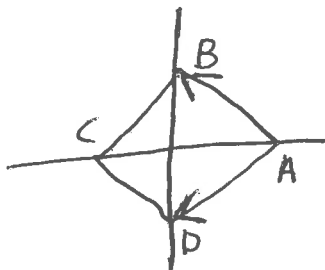
No calculators, cell phones, computers, notes, etc.

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 2, September 7, 2017, 11:40 class

Find the area of the parallelogram whose vertices are $A = (1, 0)$, $B = (0, 1)$, $C = (-1, 0)$, and $D = (0, -1)$.



$$\text{Area} = |\vec{AB} \times \vec{AD}| = |(\vec{i} + \vec{j}) \times (-\vec{i} - \vec{j})|$$

$$= \begin{vmatrix} \vec{i} & \vec{j} & \vec{k} \\ -1 & 1 & 0 \\ -1 & -1 & 0 \end{vmatrix} = \begin{vmatrix} -1 & 1 \\ -1 & -1 \end{vmatrix} \vec{k} = \boxed{2}$$

Notice that the picture really is a parallelogram because $\vec{DC} = \vec{AB}$ and $\vec{BC} = \vec{AD}$