Exploration 4

Name_____

1. Within the xy plane, find the components of unit vectors in the following directions as measured counter-clockwise from the positive x-axis: $\boldsymbol{u_1}$: 30°, $\boldsymbol{u_2}$: 60°, $\boldsymbol{u_3}$: 150°, $\boldsymbol{u_4}$: 240° and $\boldsymbol{u_5}$: 330°.

2. Find the components of the vector $\boldsymbol{v} = \boldsymbol{u_1} - 2\boldsymbol{u_3} + \boldsymbol{u_5}$.

3. Find $\|\boldsymbol{v}\|$

4. Find the angle (to the nearest degree) that the vector $\boldsymbol{v}$ makes with the positive x axis.