

Name: _____ Quiz Score: _____ /20

Quiz 10

Show your reasoning clearly for full credit.

1. (5 pts) Determine the direction angle θ of the vector $\vec{w} = -8\vec{i} + 6\vec{j}$. Round your answer to the nearest degree.
2. (5 pts) Calculate and sketch the unit vector \vec{u} with direction angle $\theta = \frac{7\pi}{6}$. Write it in the form $a\vec{i} + b\vec{j}$, where a, b are exact values.
3. (5 pts) Are the vectors $\langle -1, 3 \rangle$ and $\langle 6, 2 \rangle$ perpendicular? Justify your answer.
4. (5 pts) Find the angle between the vectors $\langle 3, 5 \rangle$ and $\langle 5, 5 \rangle$. Round your answer to the nearest degree.