Practice worksheet | Vectors in two dimensions

Angle between vectors

Name: _____ Date: _____

6 questions | 15 marks

1. Find the angle between $(1, 0)$ and $(1, 1)$. [2 marks]

2. Find the angle between $(1, 2)$ and $(2, -1)$. [2 marks]

3. Find the angle between $(3, 4)$ and $(1, 0)$ to 0.1°. [3 marks]

4. If the angle between non-zero vectors u and v is 35°, find the angle between u and $-v$. [2 marks]

5. Can $\mathbf{a} \cdot \mathbf{b} = 20$ hold if $|\mathbf{a}| = 3$ and $|\mathbf{b}| = 5$? Explain. [3 marks]

6. $A = (0, 0)$, $B = (4, 0)$, $C = (1, 3)$. Find angle BAC to 0.1°. [3 marks]