We start with the third equation given: $\vec{u} \cdot \vec{v} = 5$. Since we know that $\vec{u} \cdot \vec{v} = ||\vec{u}||||\vec{v}|| \cos(\theta)$, we can rewrite the equation as follows.

$$||\vec{u}||||\vec{v}|| \cos(\theta) = 5$$

Since we know what the values of $||\vec{u}||$ and $||\vec{v}||$ are, we can substitute and re-arrange.

$$(2)(2) \cos(\theta) = 5$$

$$\cos(\theta) = \frac{5}{4}$$

This cannot be true since the cos function cannot result in an output greater than one, so either the dot product or the lengths of the vectors must be wrong.