

Name: _____ ID: _____

1. Let A be the point at $(0, 6, -1)$, and let B be the point at $(3, 4, 4)$. Write down the vector \overrightarrow{AB} in component form.

2. Compute the dot product

$$(\mathbf{i} + 2\mathbf{j} - 3\mathbf{k}) \cdot (2\mathbf{j} - \mathbf{k}).$$