

Name: _____ Take – Home Quiz (Vectors)

1. Let $v = (a, b)$. Prove $|kv| = |k||v|$ where k is a scalar (some real number).

2. Let $u = (a, b, c)$ and $v = (d, e, f)$. Prove $u \times v = -(v \times u)$.

3. Let $u = (a, b, c)$, $v = (d, e, f)$, and $w = (g, h, i)$. Prove $u \times (v + w) = (u \times v) + (u \times w)$.