Name _____

Homework 7
Section 13.4

1. (7) Given the vectors $\vec{v} = 3\vec{i} + 5\vec{j} + 7\vec{k}$ and $\vec{w} = -\vec{i} - 3\vec{j} + 4\vec{k}$, compute $\vec{v} \times \vec{w}$.

2. (7) Find a vector which is parallel to the intersection of the planes $4x - 3y + 5z = 12$ and $2x + 4y - z = -2$.

3. (6) Suppose $\vec{v} \cdot \vec{w} = 8$, and $\|\vec{v} \times \vec{w}\| = 5$, and let θ denote the angle between $\vec{v}$ and $\vec{w}$. Determine $\tan\theta$.