Math 330 Practice Quiz F08

Complete this practice quiz before class Thursday. We will go over it in class. There will be a real quiz in class at a later date similar to this one.

1. Find a unit vector in the direction of (5, −1, 2).

2. Find the angle between (5, −1, 2) and (−1, 0, 1).

3. Find a non-zero vector that is perpendicular to (7, 2, 5). (There are many answers. Just give one, but be sure to show that your answer is really perpendicular to (7, 2, 5).)

4. Draw a picture of $x - y$ and $x + y$.

5. Draw a picture of the linear combinations $a\mathbf{x} + (1-a)\mathbf{y}$, where $a > 0$, as points instead of arrows.