

## Quiz 2 Calculus III Fall 2015

Name:.....

Solve the following problems. Explain and show work.

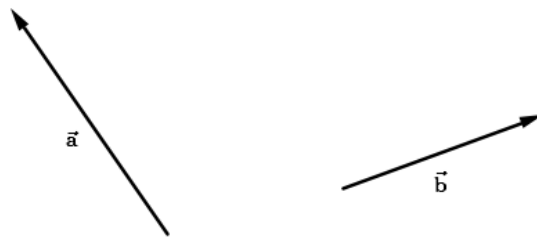
---

**Q1.** (3 points)

(a) Let  $\vec{u} = \langle -2, 1, 2 \rangle$  and  $\vec{v} = \langle 1, 0, -\frac{1}{3} \rangle$ . Compute  $\vec{u} + \vec{v}$ .

(b) Find the **unit** vector that has the same direction as  $\vec{u} = \langle -2, 1, 2 \rangle$ .

(c) Draw  $\vec{a} - \vec{b}$  using the **parallelogram law**:



**Q2.** (7 points) A decoration with weight 20 lb is suspended by wires as indicated. Find the tension in each wire and the magnitude of each tension.

