MAT 238 (Calculus 3), Prof. Jim Swift
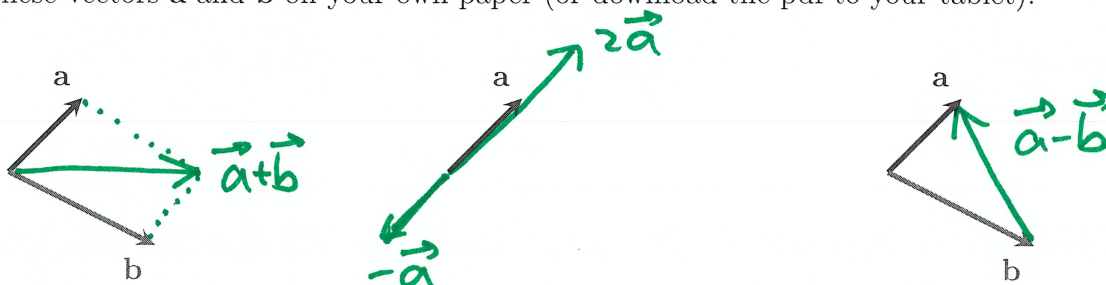## Worksheet 2: Vector Addition, Subtraction, and Scalar Mult.

Draw these vectors **a** and **b** on your own paper (or download the pdf to your tablet).

1. Draw $\mathbf{a} + \mathbf{b}$ on top of the left figure. 2. Draw $2\mathbf{a}$ and $-\mathbf{a}$ on top of the middle figure.

3. Draw $\mathbf{a} - \mathbf{b}$ on top of the right figure. Hint: $\mathbf{b} + (\mathbf{a} - \mathbf{b}) = \mathbf{a}$.

4. Estimate the scalars s and t so that $\mathbf{x} = s\mathbf{a} + t\mathbf{b}$ for the vectors shown below.

$$\mathbf{x} = 2\vec{a} + 1.5\vec{b}$$

so $\boxed{s = 2, \ t = 1.5}$