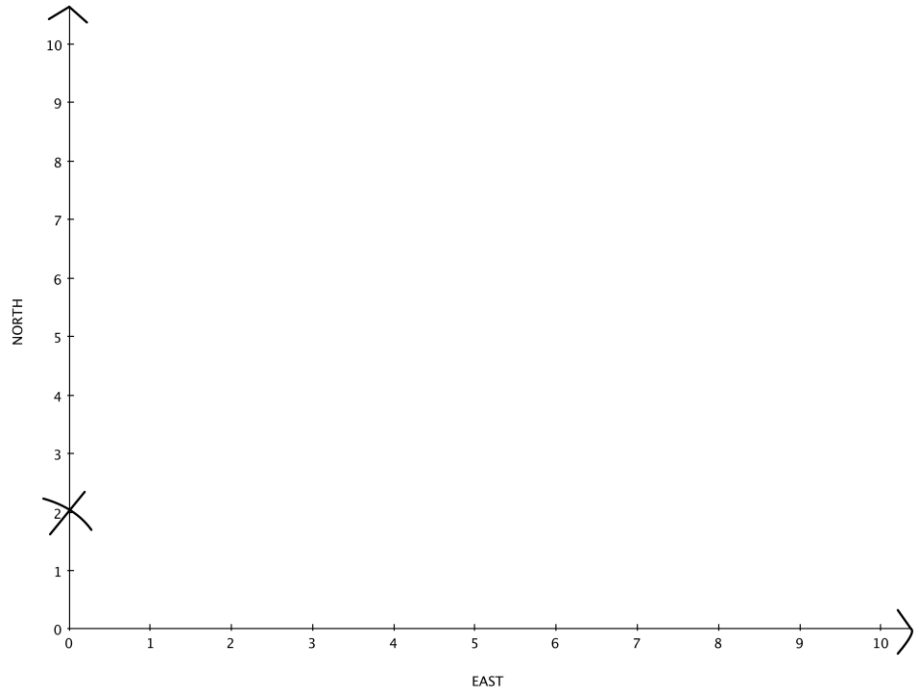
Vector Analysis

1) Label the head and tail of the vector shown below.

2) On the graph below:
   i. Starting at the X, a student walks 5 paces to the East. Draw a displacement vector for this motion and label the vector $\vec{d}_1$
   ii. Next the student turns left and walks 5 paces to the North. Draw a displacement vector for this motion and label the vector $\vec{d}_2$
   iii. Finally, Draw the vector representing the total displacement starting at the X and ending at the final position of the student using a dashed line, and label the vector $\vec{d}_{\text{total}}$



The arrangement of vectors you just drew can be represented by the equation:

$$\vec{d}_1 + \vec{d}_2 = \vec{d}_{\text{total}}$$

3) Using the formula above, in terms of the vectors heads and tails and based on their physical arrangement, write the rules for:
   i. How to draw two vectors being added:

   ii. How to drawing the resultant vector of two vectors being added: