Name: $\qquad$ Period: $\qquad$ Date: $\qquad$

## Paper Vector Lab: Tear out and use the ruler here (not to scale) and use it for your measurements Include an origin dot and all your direction arrows on your vectors

## Single $X$ and Single Y Vector Problem (Finish off \#3-\#6)

## 1. Go 1.2 cm east, then 7 cm north

| \#1 Draw and <br> label the <br> sides | \#2 Draw in the <br> resultant the vector <br> diagram with <br> resultant drawn in | \#3 Solve for the resultant magnitude | \#6 Measure the <br> resultant <br> magnitude using <br> the same <br> measuring tool <br> (cutout or a ruler <br> but keep it the <br> same) |
| :--- | :--- | :--- | :--- |
| \#4 Solve for the resultant angle |  |  |  |

## Multiple X and Y Vector Problems (Finish off \#3-\#6)

2. Go 1.2 cm east, then $\mathbf{7 c m}$ north, then 1.2 cm east

| \#1 Draw and label the sides | \#2 Redraw a right triangle with all combined $\mathbf{X}$ components together first and combined $\mathbf{Y}$ components second and draw in the resultant | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant answer (magnitude, angle, and description of angle) | \#6 Measure the resultant magnitude using the same measuring tool (cutout or a ruler but keep it the same) <br> Measured Value: (number and unit) |
| :---: | :---: | :---: | :---: |
| 3. Go 4 cm west, then 5 cm north (Complete all parts including drawing the vector diagrams) |  |  |  |
| \#1 Draw and label the sides | \#2 Redraw a right triangle | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant answer (magnitude, angle, and description of angle) | \#6 Measure the resultant magnitude using the same measuring tool (cutout or a ruler but keep it the same) <br> Measured Value: (number and unit) |


| \#4 Go 2 cm west, then 5 cm north, then 6 cm east (Complete all parts including drawing the vector diagrams) |  |  |  |
| :---: | :---: | :---: | :---: |
| \#1 Draw and label the sides | \#2 Redraw a right triangle | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant | \#6 Resultant Magnitude <br> Measured Value: (number and unit) |
| \#5 Go 6 cm west, then 2 cm south, then 2.5 cm east (Complete all parts including drawing the vector diagrams) |  |  |  |
| \#1 Draw and label the sides | \#2 Redraw a right triangle | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant | \#6 Resultant Magnitude <br> Measured Value: (number and unit) |
| \#6 Go $\mathbf{2 ~ c m ~ n o r t h , ~ t h e n ~} 3 \mathrm{~cm}$ north, then $\mathbf{3 ~ c m}$ east, then 1 cm east (Complete all parts including drawing the vector diagrams) |  |  |  |
| \#1 Draw and label the sides | \#2 Redraw a right triangle | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant | \#6 Resultant Magnitude <br> Measured Value: (number and unit) |
| \#7 Go 1 cm east, then 4 cm west, then 2 cm north, then 3 cm north (Complete all parts including drawing the vector diagrams) |  |  |  |
| \#1 Draw and label the sides | \#2 Redraw a right triangle | \#3 Solve for the resultant magnitude <br> \#4 Solve for the resultant angle <br> \#5 Give a complete resultant | \#6 Resultant Magnitude <br> Measured Value: (number and unit) |

