Worksheet: Introduction to Vectors and Angles

Name_____

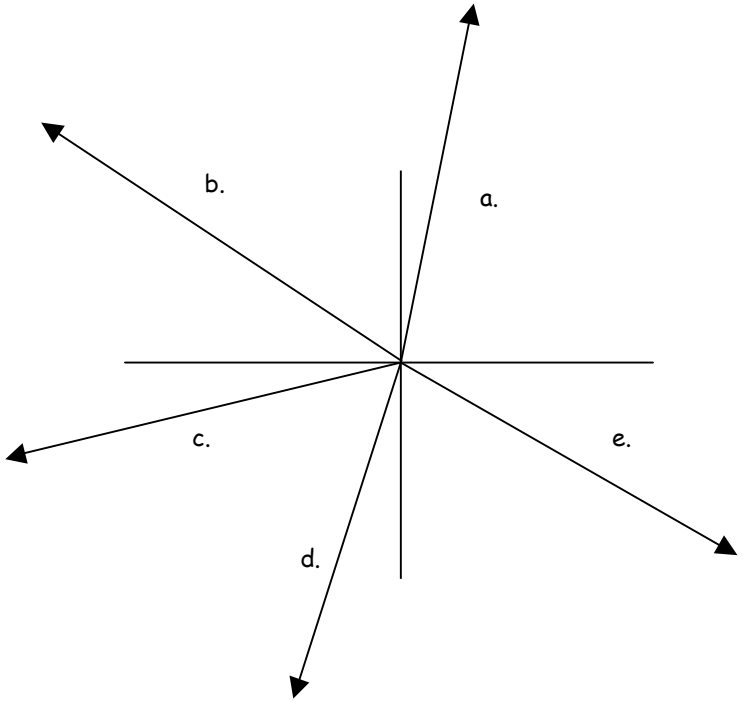
1. Define scalar and vector quantities:

2. Which is a scalar and which is a vector?

| | |
|---|---|
| A weight of 50 N | instructions on a treasure map |
| 20 seconds of time | the force of friction |
| a mass of 10 kg | your age |
| the length of your pencil | 5 m/s, West |

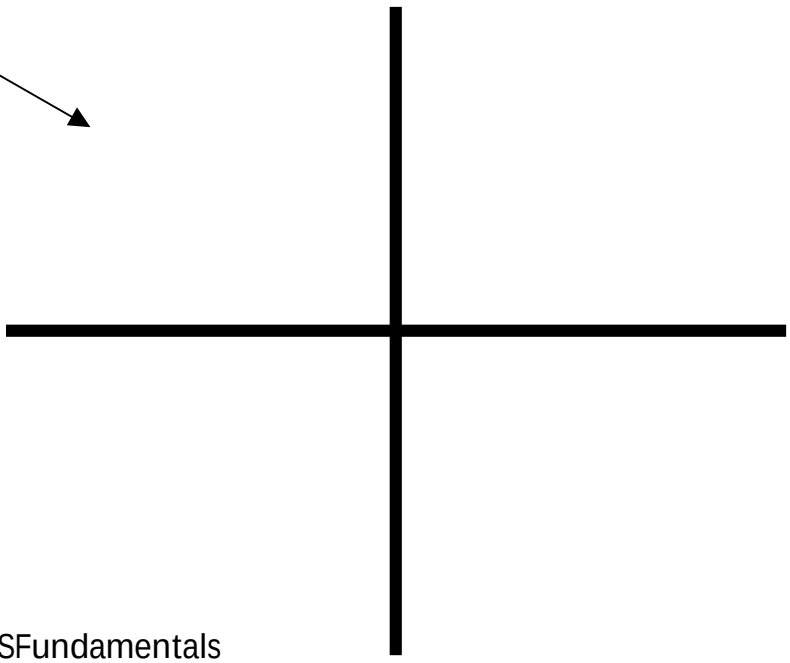
3. In a vector, the length of the arrow represents the _____ of that quantity.

4. If you walk 5 blocks to school, then 5 blocks back home because you forgot your homework, then 5 blocks back to school, your distance traveled is _____, but your displacement is _____. This is because _____ (*distance, displacement*) is a quantity where direction does not matter (a _____ quantity, while _____ (*distance, displacement*) is a quantity where direction does matter (a _____ quantity).




5. Give the angle and direction of each vector.

a. _____
b. _____
c. _____
d. _____
e. _____



6. Draw and label the following vectors:
   a. 12° W of N
   b. 31° E of N
   c. 25° S of E
   d. 43° N of E
   e. 8 ° S of W