

Name: \_\_\_\_\_

Physics 11

### Lesson 1.1 – Vectors and Scalars

- Scalars are quantities that have only \_\_\_\_\_ (and units).

They are represented by \_\_\_\_\_.

- E.g.

- Vectors are quantities that have both \_\_\_\_\_ and \_\_\_\_\_ (and units).

They are represented by a \_\_\_\_\_ and a \_\_\_\_\_,

or by an \_\_\_\_\_.

- E.g.

### Adding Numbers:

- Adding numbers is easy. The basic rules are:

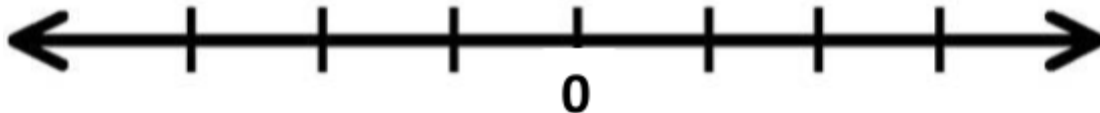
- We can put them in any \_\_\_\_\_.

- Each time we add a new number, we

\_\_\_\_\_.

- The answer ( \_\_\_\_\_ ) is counted from \_\_\_\_\_.

- E.g.  $3 + (-2) + 1$  vs.  $1 + (-2) + 3$



### Adding Vectors:

- We use the same three rules for adding vectors:
  - We can put them in any \_\_\_\_\_.
  - Each time we add a new vector, we  
\_\_\_\_\_.
  - The answer (\_\_\_\_\_) goes from \_\_\_\_\_.
    - 5 m/s right + 3 m/s up + 4 m/s down

### Distance vs. Displacement:

	Vector or Scalar?	Description
Distance		How far something traveled <b><i>along the path it took.</i></b>
Displacement		<ul style="list-style-type: none"><li>● Change in position.</li><li>● Straight arrow from start to finish.</li></ul>