Vector (Chapter 3) introduction.

<u>List the definition for each of the following vocabulary words:</u>

➤ Velocity.

➤ Vector.

➤ Scalar.

➤ Resultant.

<u>Answer the following questions in complete sentences:</u>

1. How does a *vector* differ from a *scalar*?

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2. Why is **SPEED** classified as a **SCALAR** and *VELOCITY* classified as a *VECTOR*?

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3. If a vector that is **1 cm** long represents a velocity of **10 km/h**, what velocity does a vector **2 cm** long drawn to the same scale represent?

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4. Two movers push a box down a hallway. Mover #1 pushes at 5 m/s and Mover #2 pushes at 7 m/s. How fast is the box moving? Draw a picture to scale to calculate. **(1 cm = 1 m/s)**

5. An airplane flies east at 100 km/h. It experiences a cross wind from the south of 25 km/h. How fast is the plane moving and which direction is it heading? Draw a picture to scale to calculate. **(1 cm = 25 km/h)**