

Chapters/ Sections will be Covered

Book: Fundamentals of Physics by David Halliday, Jearl Walker, and Robert Resnick

Chapter Title: Vectors

Sections:

- Vectors

- Adding Vectors Geometrically

- Components of Vectors

Sample Quiz Question

Which of the following statements is not true?

- a) $\vec{A} + \vec{B} = \vec{B} + \vec{A}$
- b) $\vec{C} = 12 + \vec{B}$
- c) $12 \vec{A} = \vec{A}12$
- d) None of the above

Which statement is true for a vector quantity?

- a) Vectors are variables only
- b) Vectors are numbers only
- c) Vectors can be divided by a number
- d) Vectors only provide direction of a variable

Sample Quiz Question

Instead of the graphical determination method of a vector, what method can be used?

- a) Associative law of vectors
- b) Commutative Law of Addition
- c) Projection of vectors
- d) None of the above

Which of the following statements is true?

- a) Temperature uses $+/-$ for magnitude (-30°C), so it is a vector
- b) A student was seen 2 meters away and 33 degrees north of the university building. It is a scalar.
- c) A vector $\overrightarrow{BA} = -\vec{a}$ becomes a negative when the direction is changed
- d) Potential energy (mgh) uses gravity and height direction, so it is a vector

Sample Quiz Question

How many vector components can be used in the rectangular component method of vectors?

- a) 1
- b) 2
- c) 3
- d) 0

If a vector works horizontally, what is the displacement along the y -axis (identify qualitatively)?

- a) Can't be measured
- b) 0
- c) Maximum
- d) Minimum > 0

Sample Quiz Question

A vector \vec{A} is moving $10m$ horizontally, what is the value of $12 + \vec{A}$?

- a) $22m$
- b) $22m$ vertically
- c) 0
- d) Can't be determined

A vector $\vec{C} = \vec{A} + \vec{B}$ works vertically where $A = 2m$ and $B = 1m$. What is the value of $3/\vec{C}$?

- a) 1
- b) 0
- c) -1
- d) Can't be determined