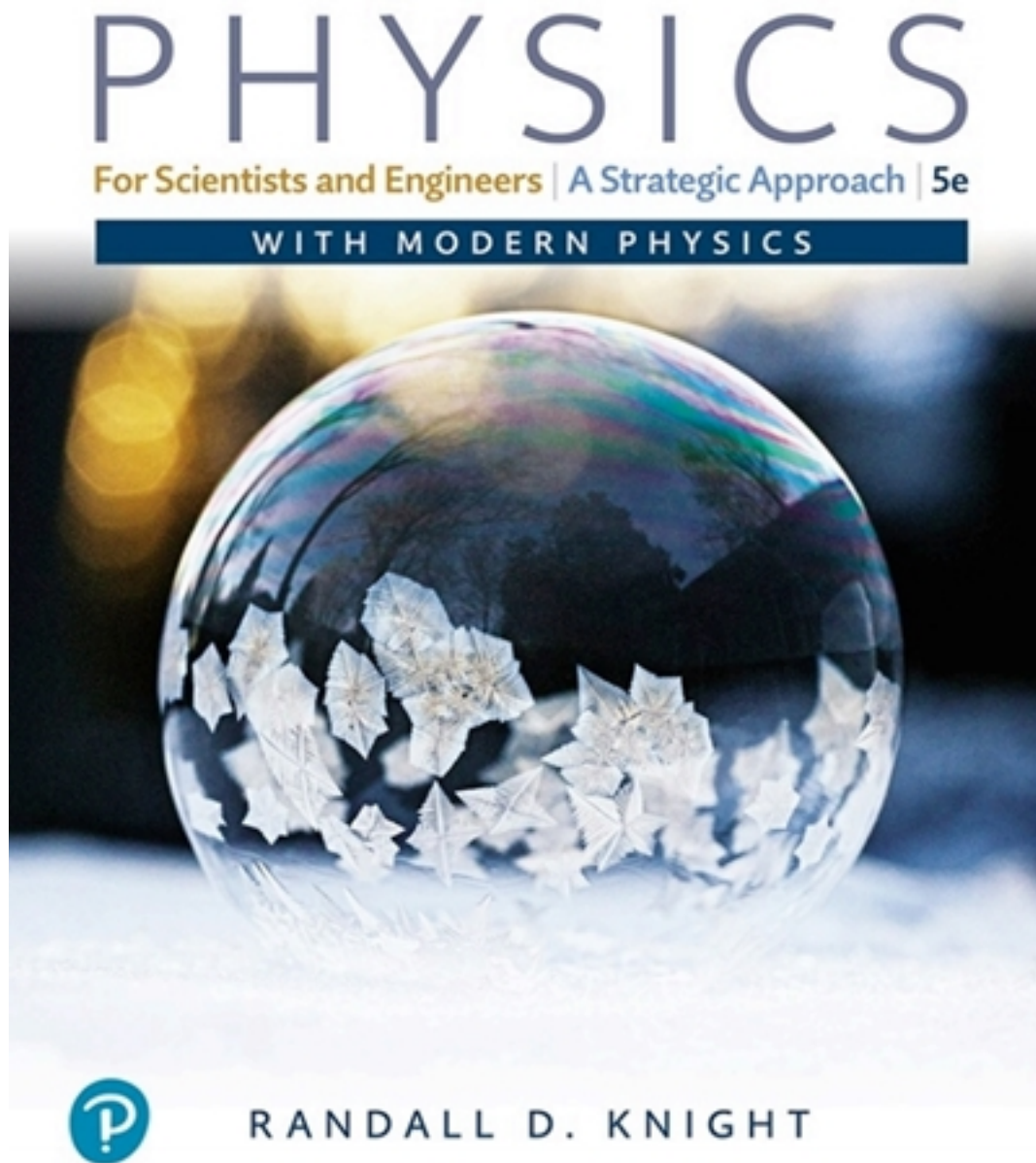


Test Bank for Physics for Scientists and Engineers 5th Edition by Knight

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Test Bank

University Physics (Pearson)

Topic 2 Vectors

2.1 Conceptual Questions

2.1.1 Addition and Subtraction

1) Addition and subtraction: If $\vec{A} - \vec{B} = 0$, then the vectors $\vec{A}$ and $\vec{B}$ have equal magnitudes and are directed in the opposite directions from each other.

A) True

B) False

Answer: B

Var: 1

Topic: Addition and subtraction

2) Addition and subtraction: Under what condition is $|\vec{A} - \vec{B}| = A + B$?

A) The magnitude of vector $\vec{B}$ is zero.

B) Vectors $\vec{A}$ and $\vec{B}$ are in opposite directions.

C) Vectors $\vec{A}$ and $\vec{B}$ are in the same direction.

D) Vectors $\vec{A}$ and $\vec{B}$ are in perpendicular directions.

E) The statement is never true.

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Answer: B

Var: 1

Topic: Addition and subtraction

3) Addition and subtraction: If $A > B$, under what condition is $|\vec{A} - \vec{B}| = A - B$?

A) The statement is never true.

B) Vectors $\vec{A}$ and $\vec{B}$ are in opposite directions.

C) Vectors $\vec{A}$ and $\vec{B}$ are in the same direction.

D) Vectors $\vec{A}$ and $\vec{B}$ are in perpendicular directions.

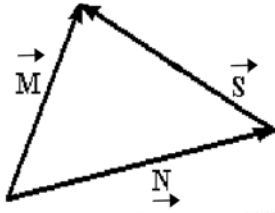
E) The statement is always true.

Answer: C

Var: 1

Topic: Addition and subtraction

4) Addition and subtraction: For the vectors shown in the figure, express vector $\vec{S}$ in terms of vectors $\vec{M}$ and $\vec{N}$.



Answer: $\vec{S} = \vec{M} - \vec{N}$

Var: 1

Topic: Addition and subtraction

2.1.2 Components

1) Components: Which of the following is an accurate statement?

- A) The magnitude of a vector can be zero even though one of its components is not zero.
- B) It is possible to add a scalar quantity to a vector.
- C) Even though two vectors have unequal magnitudes, it is possible that their vector sum is zero.
- D) Rotating a vector about an axis passing through the tip of the vector does not change the vector.
- E) The magnitude of a vector is independent of the coordinate system used.

Answer: E

Var: 1

Topic: Components

2) Components: The magnitude of a vector can never be less than the magnitude of one of its components.

- A) True
- B) False

Answer: A

Var: 1

Topic: Components

3) Components: If the magnitude of vector $\vec{A}$ is less than the magnitude of vector $\vec{B}$, then the x component of $\vec{A}$ is less than the x component of $\vec{B}$.

- A) True
- B) False

Answer: B

Var: 1

Topic: Components

4) Components: If the eastward component of vector $\vec{A}$ is equal to the westward component of vector $\vec{B}$ and their northward components are equal. Which one of the following statements about these two vectors is correct?

- A) Vector $\vec{A}$ is parallel to vector $\vec{B}$.
- B) Vectors $\vec{A}$ and $\vec{B}$ point in opposite directions.
- C) Vector $\vec{A}$ is perpendicular to vector $\vec{B}$.
- D) The magnitude of vector $\vec{A}$ is equal to the magnitude of vector $\vec{B}$.
- E) The magnitude of vector $\vec{A}$ is twice the magnitude of vector $\vec{B}$.

Answer: D

Var: 1

Topic: Components

2.1.3 Unit Vectors

1) Unit vectors: If all the components of a vector are equal to 1, then that vector is a unit vector.

- A) True
- B) False

Answer: B

Var: 1

Topic: Unit vectors

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2.1.4 Scalar (dot) Product

1) Scalar (dot) product: If the dot product of two nonzero vectors is zero, the vectors must be perpendicular to each other.

- A) True
- B) False

Answer: A

Var: 1

Topic: Scalar (dot) product

2) Scalar (dot) product: If two nonzero vectors point in the same direction, their dot product must be zero.

- A) True
- B) False

Answer: B

Var: 1

Topic: Scalar (dot) product

3) Scalar (dot) product: The value of the dot product of two vectors depends on the particular coordinate system being used.

A) True

B) False

Answer: B

Var: 1

Topic: Scalar (dot) product

2.1.5 Vector (cross) Product

1) Vector (cross) product: If two vectors are perpendicular to each other, their cross product must be zero.

A) True

B) False

Answer: B

Var: 1

Topic: Vector (cross) product

2) Vector (cross) product: If two vectors point in opposite directions, their cross product must be zero.

A) True

B) False

Answer: A

Var: 1

Topic: Vector (cross) product

3) Vector (cross) product: If $\vec{A}$ and $\vec{B}$ are nonzero vectors for which $\vec{A} \cdot \vec{B} = 0$, it must follow that

A) $\vec{A} \times \vec{B} = 0$.

B) $\vec{A}$ is parallel to $\vec{B}$.

C) $|\vec{A} \times \vec{B}| = AB$.

D) $|\vec{A} \times \vec{B}| = 1$.

Answer: C

Var: 1

Topic: Vector (cross) product

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2.2 Problems

2.2.1 Addition and Subtraction

1) Addition and subtraction: You walk 55 m to the north, then turn 60° to your right and walk another 45 m. How far are you from where you originally started?

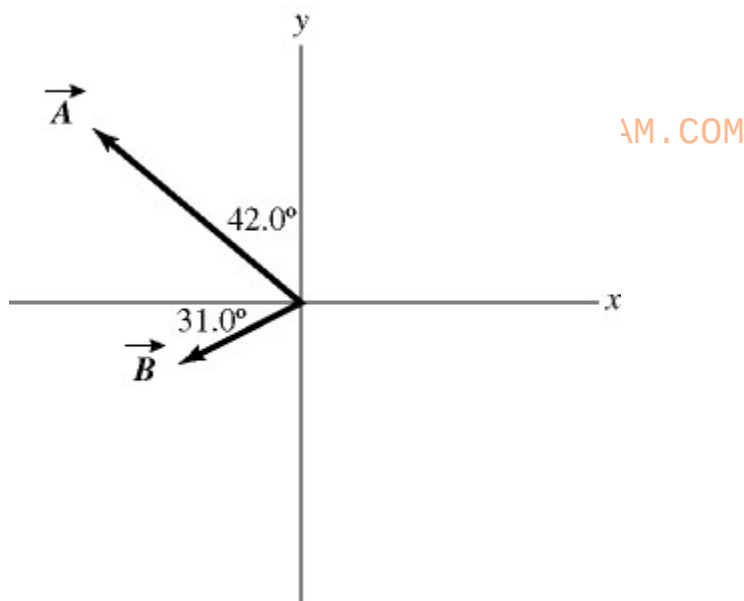
- A) 87 m
- B) 50 m
- C) 94 m
- D) 46 m

Answer: A

Var: 31

Topic: Addition and subtraction

2) Addition and subtraction: Vectors $\vec{A}$ and $\vec{B}$ are shown in the figure. Vector $\vec{C}$ is given by $\vec{C} = \vec{B} - \vec{A}$. The magnitude of vector $\vec{A}$ is 16.0 units, and the magnitude of vector $\vec{B}$ is 7.00 units. What is the magnitude of vector $\vec{C}$?



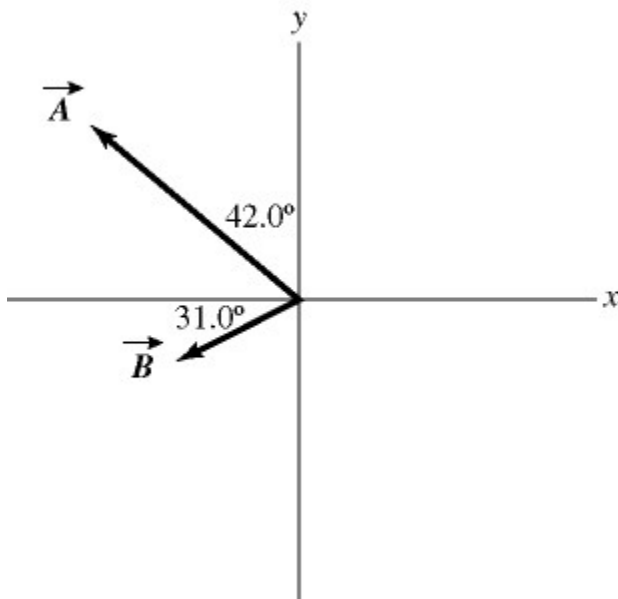
- A) 9.00
- B) 9.53
- C) 15.5
- D) 16.2
- E) 17.5

Answer: D

Var: 1

Topic: Addition and subtraction

3) Addition and subtraction: Vectors $\vec{A}$ and $\vec{B}$ are shown in the figure. Vector $\vec{C}$ is given by $\vec{C} = \vec{B} - \vec{A}$. The magnitude of vector $\vec{A}$ is 16.0 units, and the magnitude of vector $\vec{B}$ is 7.00 units. What is the angle of vector $\vec{C}$, measured counterclockwise from the +x-axis?



- A) 16.9°
- B) 22.4°
- C) 73.1°
- D) 287°
- E) 292°

Answer: D

Var: 1

Topic: Addition and subtraction

4) Addition and subtraction: A rabbit trying to escape a fox runs north for 8.0 m, darts northwest for 1.0 m, then drops 1.0 m down a hole into its burrow. What is the magnitude of the net displacement of the rabbit?

- A) 8.8 m
- B) 8.1 m
- C) 66 m
- D) 10 m

Answer: A

Var: 50+

Topic: Addition and subtraction

5) Addition and subtraction: You walk 53 m to the north, then turn 60° to your right and walk another 45 m. Determine the direction of your displacement vector. Express your answer as an angle relative to east.

- A) 63° N of E
- B) 50° N of E
- C) 57° N of E
- D) 69° N of E

Answer: A

Var: 50+

Topic: Addition and subtraction

2.2.2 Components

1) Components: Vector $\vec{A}$ has a magnitude 5.00 and points in a direction 40.0° clockwise from the negative y axis. What are the x and y components of vector $\vec{A}$.

- A) $A_x = 3.83$ and $A_y = 3.21$
- B) $A_x = 3.83$ and $A_y = -3.21$
- C) $A_x = -3.21$ and $A_y = -3.83$
- D) $A_x = -3.21$ and $A_y = 3.83$
- E) $A_x = 4.29$ and $A_y = 2.16$

Answer: C

Var: 5

Topic: Components

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2) Components: The components of vector $\vec{A}$ are $A_x = +3.90$ and $A_y = -4.00$. What is the angle measured counterclockwise from the +x-axis to vector $\vec{A}$?

- A) 314°
- B) 134°
- C) 224°
- D) 136°
- E) 46.0°

Answer: A

Var: 1

Topic: Components

3) Components: Vector $\vec{A}$ has a magnitude of 5.5 cm and points along the x-axis. Vector $\vec{B}$ has a magnitude of 7.5 cm and points at $+30^\circ$ above the negative x-axis.

- (a) Determine the x and y components of Vector $\vec{A}$.
- (b) Determine the x and y components of Vector $\vec{B}$.
- (c) Determine x and y components of the sum of these two vectors.
- (d) Determine the magnitude and direction of the sum of these two vectors.

Answer: (a) $A_x = 5.5$ cm, $A_y = 0$

(b) $B_x = -6.5$ cm, $B_y = 3.8$ cm

(c) $R_x = -1.0$ cm, $R_y = 3.8$ cm

(d) 3.9 cm at 75° above -x-axis

Var: 1

Topic: Components

4) Components: Vector $\vec{A}$ has a magnitude of 75.0 cm and points at 30° above the positive x-axis. Vector $\vec{B}$ has a magnitude of 25.0 cm and points along the negative x-axis. Vector $\vec{C}$ has a magnitude of 40.0 cm and points at 45° below the negative x-axis.

- (a) Determine the x and y components of Vector $\vec{A}$.
- (b) Determine the x and y components of Vector $\vec{B}$.
- (c) Determine the x and y components of Vector $\vec{C}$.
- (d) Determine x and y components of the sum of these three vectors.
- (e) Determine the magnitude and direction of the sum of these three vectors.

Answer: (a) $A_x = 65$ cm, $A_y = 38$ cm

(b) $B_x = -25$ cm, $B_y = 0$

(c) $C_x = -28$ cm, $C_y = -28$ cm

(d) $R_x = 12$ cm, $R_y = 9.2$ cm

(e) 15 cm at 38° above +x-axis

Var: 1

Topic: Components

5) Components: A helicopter is flying horizontally with a speed of 444 m/s over a hill that slopes upward with a 2% grade (that is, the "rise" is 2% of the "run"). What is the component of the helicopter's velocity perpendicular to the sloping surface of the hill?

A) 8.9 m/s

B) 220 m/s

C) 435 m/s

D) 444 m/s

Answer: A

Var: 50+

Topic: Components

6) Components: An apple falls from an apple tree growing on a 20° slope. The apple hits the ground with an impact velocity of 16.2 m/s straight downward. What is the component of the apple's impact velocity parallel to the surface of the slope?

- A) 5.5 m/s
- B) 8.7 m/s
- C) 12 m/s
- D) 15 m/s

Answer: A

Var: 50+

Topic: Components

7) Components: The components of vector $\vec{A}$ are $A_x = +2.2$ and $A_y = -6.9$, and the components of vector $\vec{B}$ are given are $B_x = -6.1$ and $B_y = -2.2$. What is the magnitude of the vector $\vec{B} - \vec{A}$?

- A) 9.5
- B) 6.1
- C) 9.9
- D) 91
- E) 0.76

Answer: A

Var: 50+

Topic: Components

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8) Components: The components of vector $\vec{B}$ are $B_x = -3.5$ and $B_y = -9.7$, and the components of vector $\vec{C}$ are $C_x = -6$ and $C_y = +8.1$. What is the angle (less than 180 degrees) between vectors $\vec{B}$ and $\vec{C}$?

- A) 124°
- B) 56°
- C) 17°
- D) 163°
- E) 106°

Answer: A

Var: 50+

Topic: Components

9) Components: An airplane undergoes the following displacements: First, it flies 66 km in a direction 30° east of north. Next, it flies 49 km due south. Finally, it flies 100 km 30° north of west. Using vector components, determine how far the airplane ends up from its starting point.

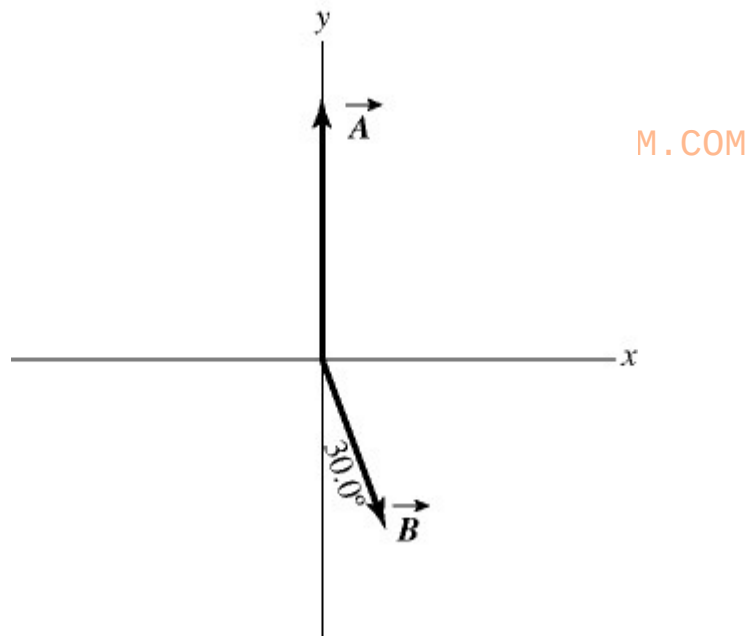
- A) 79 km
- B) 81 km
- C) 82 km
- D) 78 km
- E) 76 km

Answer: A

Var: 1

Topic: Components

10) Components: In the figure, the magnitude of vector $\vec{A}$ is 18.0 units, and the magnitude of vector $\vec{B}$ is 12.0 units. What vector $\vec{C}$ must be added to the vectors $\vec{A}$ and $\vec{B}$ so that the resultant of these three vectors points in the $-x$ direction and has a magnitude of 7.50 units? Use vector components to find your answer, and express vector $\vec{C}$ by giving its magnitude and the angle it makes with the $+x$ -axis taking counterclockwise to be positive.

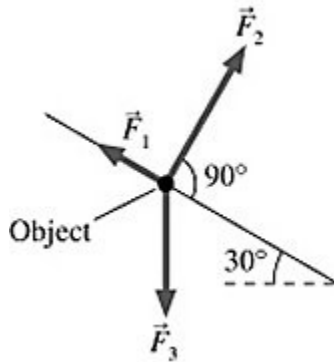


Answer: 15.5, 209°

Var: 1

Topic: Components

11) Components: Three forces are exerted on an object placed on a tilted floor. Forces are vectors. The three forces are directed as shown in the figure. If the forces have magnitudes $F_1 = 1.0 \text{ N}$, $F_2 = 8.0 \text{ N}$ and $F_3 = 7.0 \text{ N}$, where N is the standard unit of force, what is the component of the net force $\vec{F}_{\text{net}} = \vec{F}_1 + \vec{F}_2 + \vec{F}_3$ parallel to the floor?



- A) 2.5 N
- B) 5.1 N
- C) 6.0 N
- D) 7.8 N

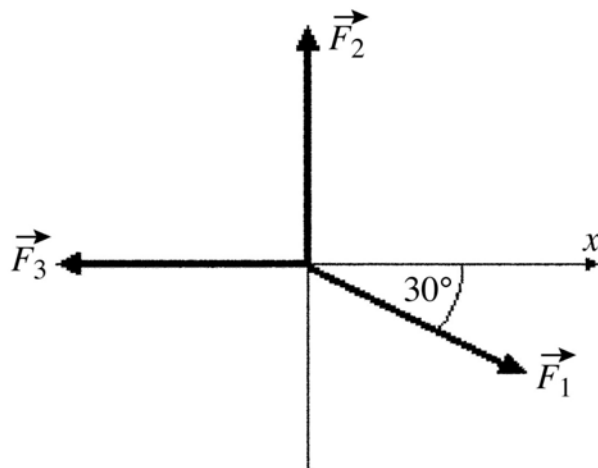
Answer: A

Var: 29

Topic: Components

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12) Components: As shown in the figure, three force vectors act on an object. The magnitudes of the forces as shown in the figure are $F_1 = 80.0$ N, $F_2 = 60.0$ N, and $F_3 = 40.0$ N, where N is the standard SI unit of force. The resultant force acting on the object is given by



- A) 180 N at an angle 60.0° with respect to $+x$ -axis.
- B) 60.0 N at an angle 90.0° with respect to $+x$ -axis.
- C) 20.0 N at an angle 34.3° with respect to $+x$ -axis.
- D) 35.5 N at an angle 34.3° with respect to $+x$ -axis.
- E) 40.0 N at an angle 60.0° with respect to $+x$ -axis.

Answer: D

Var: 1

Topic: Components

13) Components: A teacher sends her students on a treasure hunt. She gives the following instructions:

1. Walk 300 m north
2. Walk 400 m northwest
3. Walk 700 m east-southeast and the treasure is buried there.

As all the other students walk off following the instructions, Jane physics student quickly adds the displacements and walks in a straight line to find the treasure. How far and in what direction does Jane need to walk?

- A) 187 m in a direction 67.3° north of east
- B) 481 m in a direction 40.9° north of east
- C) 399 m in a direction 52.5° north of east
- D) 284 m in a direction 28.2° west of north
- E) The treasure position cannot be reached in one straight walk.

Answer: B

Var: 1

Topic: Components

2.2.3 Unit Vectors

1) Unit vectors: Vector $\vec{A} = -3.00\hat{i} + 3.00\hat{j}$ and vector $\vec{B} = 3.00\hat{i} + 4.00\hat{j}$. What is vector $\vec{C} = \vec{A} + \vec{B}$?

- A) $0.00\hat{i} + 3.00\hat{j}$
- B) $7.00\hat{i} + 7.00\hat{j}$
- C) $-3.00\hat{i} + 7.00\hat{j}$
- D) $0.00\hat{i} + 7.00\hat{j}$
- E) $-3.00\hat{i} - 3.00\hat{j}$

Answer: D

Var: 1

Topic: Unit vectors

2) Unit vectors: Vector $\vec{A} = 1.00\hat{i} - 2.00\hat{j}$ and vector $\vec{B} = 3.00\hat{i} + 4.00\hat{j}$ What are the magnitude and direction of vector $\vec{C} = \vec{A} + \vec{B}$?

- A) 7.21 in a direction 33.7° counterclockwise from the positive x axis
- B) 6.00 in a direction 63.4° counterclockwise from the positive x axis
- C) 4.47 in a direction 6.34° counterclockwise from the positive x axis
- D) 4.47 in a direction 26.6° counterclockwise from the positive x axis
- E) 7.21 in a direction 56.3° counterclockwise from the positive x axis

Answer: D

Var: 1

Topic: Unit vectors

3) Unit vectors: What is the magnitude of $\vec{A} + \vec{B} + \vec{C}$, where $\vec{A} = 1.00\hat{i} + 4.00\hat{j} - 1.00\hat{k}$, $\vec{B} = 3.00\hat{i} - 1.00\hat{j} - 4.00\hat{k}$ and $\vec{C} = -1.00\hat{i} + 1.00\hat{j}$?

- A) 7.07
- B) 2.00
- C) 10.76
- D) 6.78
- E) 8.12

Answer: A

Var: 9

Topic: Unit vectors

4) Unit vectors: If $\vec{A} = +4\hat{i} - 2\hat{j} - 3\hat{k}$ and $\vec{C} = -4\hat{i} - 2\hat{j} - 3\hat{k}$, which of the following numbers is closest to the magnitude of $\vec{A} - \vec{C}$?

- A) 8
- B) 7
- C) 9
- D) 10
- E) 11

Answer: A

Var: 50+

Topic: Unit vectors

5) Unit vectors: Vector $\vec{A} = -1.00\hat{i} + -2.00\hat{j}$ and vector $\vec{B} = 3.00\hat{i} + 4.00\hat{j}$ What are the magnitude and direction of vector $\vec{C} = 3.00\vec{A} + 2.00\vec{B}$?

- A) 3.61 in a direction -56.3° counterclockwise from the positive x-axis
- B) 3.61 in a direction 56.3° counterclockwise from the positive x-axis
- C) 3.61 in a direction 33.7° counterclockwise from the positive x-axis
- D) 5.00 in a direction 56.3° counterclockwise from the positive x axis
- E) 6.72 in a direction 34.4° counterclockwise from the positive x-axis

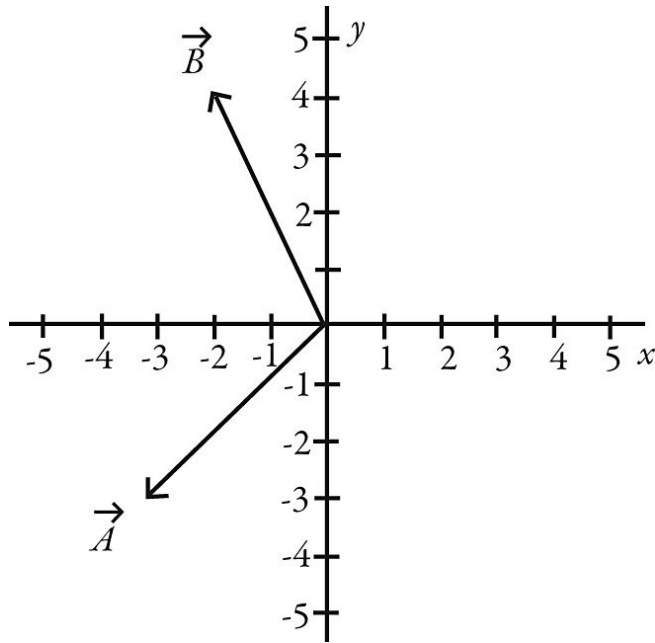
Answer: C

Var: 1

Topic: Unit vectors

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6) Unit vectors: Vectors $\vec{A}$ and $\vec{B}$ are shown in the figure. What is $|-5.00 \vec{A} + 4.00 \vec{B}|$



- A) 31.8
- B) $-32.0 \hat{i} - 2.00 \hat{j}$
- C) 1028
- D) 34.0
- E) $-2.00 \hat{i} - 32.0 \hat{j}$

Answer: A

Var: 1

Topic: Unit vectors

2.2.4 Scalar (dot) Product

1) Scalar (dot) product: Determine the scalar product of $\vec{A} = 6.0 \hat{i} + 4.0 \hat{j} - 2.0 \hat{k}$ and $\vec{B} = 5.0 \hat{i} - 6.0 \hat{j} - 3.0 \hat{k}$.

- A) $30 \hat{i} + 24 \hat{j} + 6 \hat{k}$
- B) $30 \hat{i} - 24 \hat{j} + 6 \hat{k}$
- C) 12
- D) 60
- E) undefined

Answer: C

Var: 5

Topic: Scalar (dot) product

2) Scalar (dot) product: Determine the angle between the directions of vector $\vec{A} = 3.00\hat{i} + 1.00\hat{j}$ and vector $\vec{B} = -3.00\hat{i} + 3.00\hat{j}$.

- A) 26.6°
- B) 30.0°
- C) 88.1°
- D) 117°
- E) 45.2°

Answer: D

Var: 5

Topic: Scalar (dot) product

3) Scalar (dot) product: The scalar product of vector $\vec{A} = 3.00\hat{i} + 2.00\hat{j}$ and vector $\vec{B}$ is 10.0. Which of the following vectors could be vector $\vec{B}$?

- A) $2.00\hat{i} + 4.00\hat{j}$
- B) $4.00\hat{i} + 6.00\hat{j}$
- C) $5.00\hat{i} + 4.00\hat{j}$
- D) $12.0\hat{i}$
- E) $2.00\hat{i} + 2.00\hat{j}$

Answer: E

Var: 5

Topic: Scalar (dot) product

4) Scalar (dot) product: The angle between vector $\vec{A} = 2.00\hat{i} + 3.00\hat{j}$ and vector $\vec{B}$ is 45.0° . The scalar product of vectors $\vec{A}$ and $\vec{B}$ is 3.00. If the x component of vector $\vec{B}$ is positive, what is vector $\vec{B}$.

- A) $4.76\hat{i} + 0.952\hat{j}$
- B) $1.15\hat{i} + 0.231\hat{j}$
- C) $2.96\hat{i} + -0.973\hat{j}$
- D) $0.871\hat{i} + 0.419\hat{j}$
- E) $3.42\hat{i} + 0.684\hat{j}$

Answer: B

Var: 5

Topic: Scalar (dot) product

5) Scalar (dot) product: What is the angle between the vector $\vec{A} = +3\hat{i} - 2\hat{j} - 3\hat{k}$ and the +y-axis?

- A) 115°
- B) 65°
- C) 25°
- D) 155°
- E) 90°

Answer: A

Var: 16

Topic: Scalar (dot) product

6) Scalar (dot) product: If $\vec{A} = 3\hat{i} - \hat{j} + 4\hat{k}$ and $\vec{B} = x\hat{i} + \hat{j} - 5\hat{k}$, find x so $\vec{B}$ will be perpendicular to $\vec{A}$.

Answer: 7

Var: 1

Topic: Scalar (dot) product

7) Scalar (dot) product: Two boys searching for buried treasure are standing underneath the same tree. One boy walks 18 m east and then 18 m north. The other boy walks 16 m west and then 11 m north. Find the scalar product of their net displacements from the tree.

Answer: -90 m^2

Var: 50+

Topic: Scalar (dot) product

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8) Scalar (dot) product: A rectangular box is positioned with its vertices at the following points:

$A = (0,0,0)$ $C = (2,4,0)$ $E = (0,0,3)$ $G = (2,4,3)$

$B = (2,0,0)$ $D = (0,4,0)$ $F = (2,0,3)$ $H = (0,4,3)$

If the coordinates all have three significant figures, the angle between the line segments AG and AH is closest to:

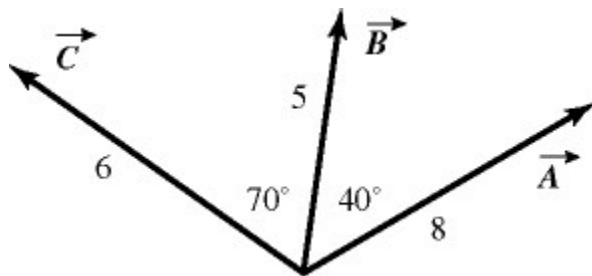
- A) 21.8° .
- B) 22.5° .
- C) 26.6° .
- D) 36.9° .
- E) 45.0° .

Answer: A

Var: 1

Topic: Scalar (dot) product

9) Scalar (dot) product: For the vectors shown in the figure, assume numbers are accurate to two significant figures. The scalar product $\vec{A} \times \vec{C}$ is closest to



- A) zero.
- B) 16.
- C) 45.
- D) -16.
- E) -45.

Answer: D

Var: 1

Topic: Scalar (dot) product

2.2.5 Vector (cross) Product

1) Vector (cross) product: What is the vector product of $\vec{A} = 2.00\hat{i} + 3.00\hat{j} + 1.00\hat{k}$ and $\vec{B} = 1.00\hat{i} - 3.00\hat{j} - 2.00\hat{k}$?

- A) $-3.00\hat{i} + 5.00\hat{j} - 9.00\hat{k}$
- B) $-5.00\hat{i} + 2.00\hat{j} - 6.00\hat{k}$
- C) $-9.00\hat{i} - 3.00\hat{j} - 3.00\hat{k}$
- D) $-4.00\hat{i} + 3.00\hat{j} - 1.00\hat{k}$
- E) $2.00\hat{i} - 9.00\hat{j} - 2.00\hat{k}$

Answer: A

Var: 1

Topic: Vector (cross) product

2) Vector (cross) product: What is the magnitude of the cross product of a vector of magnitude 2.00 m pointing east and a vector of magnitude 4.00 m pointing 30.0° west of north?

- A) 6.93
- B) -6.93
- C) 4.00
- D) -4.00
- E) 8.00

Answer: A

Var: 1

Topic: Vector (cross) product

3) Vector (cross) product: If the magnitude of the cross product of two vectors is one-half the dot product of the same vectors, what is the angle between the two vectors?

Answer: 26.6°

Var: 1

Topic: Vector (cross) product

4) Vector (cross) product: If $\vec{C} = -4\hat{i} - 2\hat{j} - 3\hat{k}$, what is $\vec{C} \times \hat{j}$?

A) $+3\hat{i} - 4\hat{k}$

B) $+3\hat{i} + 4\hat{k}$

C) $-3\hat{i} + 4\hat{k}$

D) $+3\hat{i} + 2\hat{j} - 4\hat{k}$

E) $-3\hat{i} - 2\hat{j} + 4\hat{k}$

Answer: A

Var: 50+

Topic: Vector (cross) product

5) Vector (cross) product: If $\vec{B} = -2\hat{i} - 6\hat{j} + 2\hat{k}$ and $\vec{C} = -2\hat{i} - 2\hat{j} - 3\hat{k}$, which of the following numbers is closest to the magnitude of $\vec{C} \times \vec{B}$?

A) 25

B) 21

C) 17

D) 13

E) 9

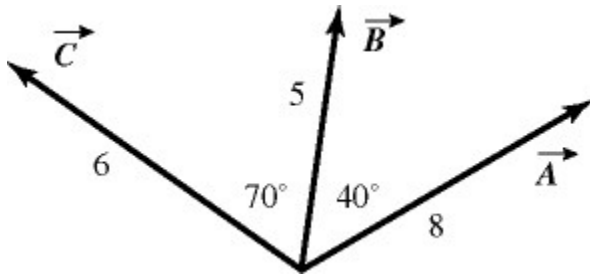
Answer: A

Var: 50+

Topic: Vector (cross) product

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6) Vector (cross) product: For the vectors shown in the figure, find the magnitude and direction of $\vec{B} \times \vec{A}$, assuming that the quantities shown are accurate to two significant figures.



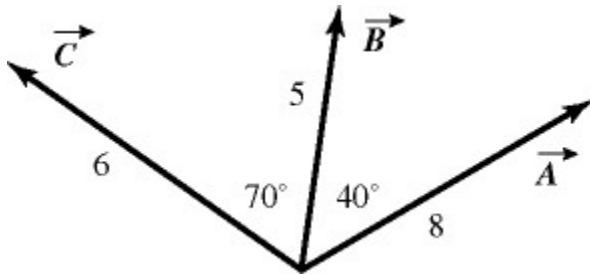
- A) 26, directed into the plane
- B) 26, directed out of the plane
- C) 31, directed on the plane
- D) 31, directed into the plane
- E) 31, directed out of the plane

Answer: A

Var: 1

Topic: Vector (cross) product

7) Vector (cross) product: For the vectors shown in the figure, find the magnitude and direction of the vector product $\vec{A} \times \vec{C}$ that the quantities shown are accurate to two significant figures.



- A) 16, directed into the plane
- B) 16, directed out of the plane
- C) 45, directed on the plane
- D) 45, directed into the plane
- E) 45, directed out of the plane

Answer: E

Var: 1

Topic: Vector (cross) product