Flag question

Which of the following sets of forces cannot have a vector sum of zero?

Select one:

- a. 10, 10, and 10N
- b. 10, 10, and 20N
- c. 10, 20, and 20N
- d. 10, 20, and 40N. ✔

The correct answer is: 10, 20, and 40N.

Question **2**

Correct

Mark 1.0 out of 1.0

Question **2**

Correct

Mark 1.0 out of 1.0

Flag question

If the magnitude of the resultant of two forces **F** and **F** at a point is also F, then the angle between the forces is:

Select one:

a. 90°

b. 0°

c. 120° ✔

d. 60°

The correct answer is: 120°

Question 3

Correct

Mark 1.0 out of 1.0

Flag question

The magnitude of the resultant of two vectors is a maximum when the angle between them is

Select one:

- a. 0° ✔
- b. 120°
- c. 180°
- d. 90°

The correct answer is: 0°

Question **4**

Correct

Mark 1.0 out of 1.0

Flag question

The condition for two vectors **A** + **B** = **A** − **B** is that

Select one:

a. **A** = 0

b. **B** is a unit vector.

c. **B** = 0 ✔

d. **A** = **B**

The correct answer is: **B** = 0

Question **5**

Correct

Mark 1.0 out of 1.0

Flag question

The magnitude of the resultant of two forces is a minimum when the angle between them is

Select one:

- a. 45°
- b. 180° ✔
- c. 90°
- d. 0°

The correct answer is: 180°

Correct

Mark 1.0 out of 1.0

Flag question

A vector **A** lies in a plane and has the components **Ax** and **Ay**. The magnitude **Ax** of **A** is equal to :

Select one:

a. $\sqrt{A^2 - A_y^2}$

b. $\sqrt{A} - \sqrt{A_y}$

c. $\sqrt{A - A_y}$

d. $A - A_y$

A ship travels 200 km to the south and then 400 km to the west. At what angle west of south should the ship have headed to arrive at the same place in a straight path?

Select one:

a. 207°

b. 63°

c. 27°

d. 35°

Question **9**

Correct

Mark 1.0 out of 1.0

Flag question

The resultant of two forces 5N and 10N can never be

Select one:

- a. 10N
- b. 12N
- c. 5N
- d. 4N. ✔

The correct answer is: 4N.

Question **10**

Correct

Mark 1.0 out of 1.0

Flag question

Two forces 10N each act on an object. The angle between the forces is 120°. The magnitude of their resultant is equal to:

Select one:

- a. 20N
- b. 17N.
- c. 14N
- d. 10N ✔

The correct answer is: 10N

Question **6**

Correct

Mark 1.0 out of 1.0

Flag question

If the magnitudes of vectors **A**, **B**, and **C** are 12, 5, and 13 units respectively, and **A** + **B** = **C**, the angle between vector **A** and vector **B** is:

Select one:

- a. π/4
- b. π.
- c. π/2 ✔
- d. 0

The correct answer is: π/2