Vectors Test Review Quiz

This is a preview of the draft version of the quiz

Started: Nov 13 at 8:20am

Quiz Instructions

Question 1 — 1 pts

When two concurrent (aka simultaneous) forces of 6 and 12 Newtons act on an object, what is the maximum resultant?

Question 2 — 1 pts

When two concurrent (aka simultaneous) forces of 6 and 12 Newtons act on an object, what is the minimum resultant?

Question 3 — 1 pts

When two concurrent (aka simultaneous) forces of 6 and 12 Newtons act on an object with an angle of 90 degrees between them, what is the magnitude of the resultant?

Question 4

1 pts

The minimum resultant of two forces acting on an object will occur when the angle between the two vectors is _____ degrees.

- 30
- 0
- 45
- 90
- 180
- 120

Question 5

1 pts

The maximum resultant of two forces acting on an object will occur when the angle between the two vectors is _____ degrees.

- 180
- 45
- 90
- 30
- 0

Question 6

1 pts

A resultant force of 12 Newtons is made up of two vector components acting at 90 degrees to one another. If the magnitude of one component is 8 Newtons, what is the

magnitude of the other component?

Question 7 1 pts

The equilibrant is the negative of the resultant.

- True
- False

Question 8 1 pts

A 6 Newton vector pointed North is added to a 6 Newton vector pointed east, what is the direction of the resultant?

- SE
- SW
- NE
- NW

Question 9 1 pts

A 6 Newton vector pointed North is added to a 6 Newton vector pointed east, what is the direction of the equilibrant?

- SE

- SW
- NE
- NW

Question 10

1 pts

A 6 Newton vector pointed North is added to a 6 Newton vector pointed east, what is the magnitude of the resultant?

Question 11

1 pts

It is possible for two vectors of magnitude 5 each to add to a resultant of 11.

- True
- False

Question 12

1 pts

It is possible for two vectors of magnitude 5 each to add to a resultant of 7.

- True
- False

Question 13

1 pts

For objects on an inclined plane, equilibrium along the ramp is achieved when friction force is congruent to the weight parallel component.

- True
- False

Question 14

1 pts

For objects on an inclined plane, equilibrium perpendicular to the ramp is achieved when force normal is congruent to the weight perpendicular component.

- True
- False

Question 15

1 pts

An object sliding down an inclined plane at a constant velocity is not in equilibrium.

- True
- False

Question 16

1 pts

An object accelerating down an inclined plane at velocity is in equilibrium.

- True
- False

Question 17 1 pts

Force normal is always pointed in the opposite direction of force gravity.

- True
- False

Question 18 1 pts

Force normal is always pointed in the opposite direction of the perpendicular component of weight--which is perpendicular to the ramp.

- True
- False

Question 19 1 pts

The vertical component of a vector increases as the angle of the vector increases.

*Assume the vector angle is bounded between 0 and 90 degrees.

- True
- False

Question 20 1 pts

Displacement is 0 meters if an object ends at the same position at which it began.

- True
- False

Question 21 1 pts

For objects on an incline, the coefficient of friction depends on the angle of the ramp and not the materials of the object.

- True
- False

Question 22 1 pts

The perpendicular component of weight causes an object to accelerate down an incline if there is no friction.

- True
- False

Question 23 1 pts

Friction is equal to force normal multiplied by the coefficient of friction.

- True
- False

Question 24 1 pts

Velocity is a vector and can be resolved (aka 'broken up') into two component vectors.

- True
- False

Question 25 1 pts

The angle of the ramp is always equal to the angle between the weight force vector and the perpendicular weight component vector.

- True
- False

No new data to save. Last checked at 8:21am Submit Quiz