Edexcel GCSE Physics

Topic 9.1-9.5P - Types of Forces

Flashcards

What is a force?

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A push or pull acting on an object due to an interaction with another object.

What are the two categories that all forces can be split into?

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1. Contact forces (objects touching)
2. Non-contact forces (objects separated)

Give three examples of contact forces.

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1. Friction
2. Air resistance
3. Tension

Give three examples of non-contact forces.

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1. Gravitational forces
2. Electrostatic forces
3. Magnetic forces

Is force a vector or a scalar quantity? Why?

Is force a vector or a scalar quantity? Why?

- Vector
- It has both magnitude and direction

What is a scalar quantity?

What is a scalar quantity?

- A quantity that only has a magnitude
- A quantity that isn't direction dependent

What is a vector quantity?

What is a vector quantity?

A quantity that has both magnitude and direction.

Give three examples of vector quantities.

Give three examples of vector quantities.

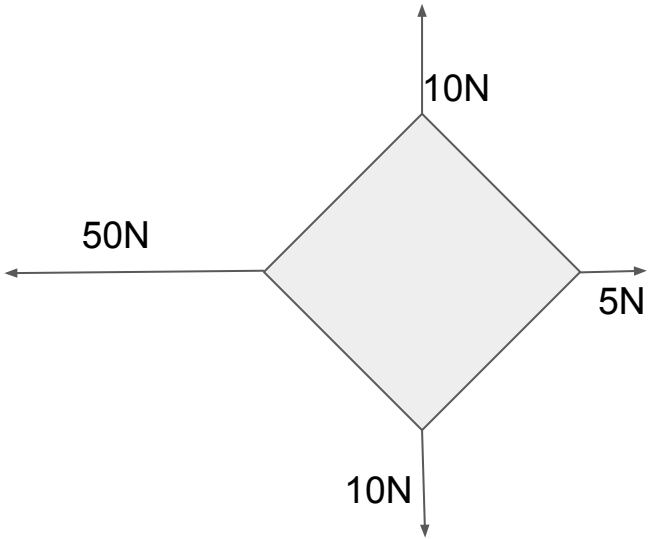
1. Velocity
2. Displacement
3. Force

Give examples of scalar quantities.

Give examples of scalar quantities.

- Temperature
- Time
- Mass
- Speed
- Distance
- Energy

What magnitude would the resultant force have and in what direction would it be pointing? (Higher)



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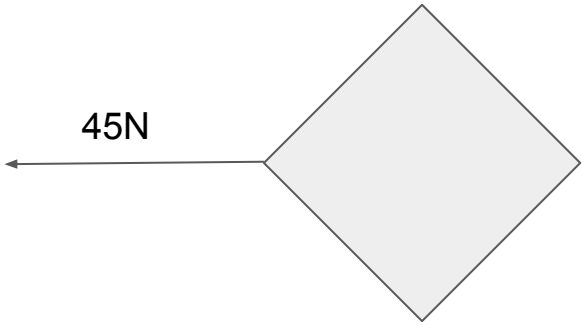

How are vectors represented? (Higher)

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- Vector arrows
- Length indicates magnitude
- Arrow indicates direction

How can you calculate the resultant magnitude and direction of forces using a scale drawing? (Higher)

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- Draw the component forces as scaled arrows, joined tip-to-tail
- Draw a line connecting the two open ends.
- Measure the length of this line and convert into the magnitude.
- Measure the angle between the resultant line and the vertical/horizontal to find the direction.