

Chapter 9 – Resultant Force

The force that can be used instead of forces is called the force.

Resultant force of collinear forces acting on the same direction

- Collinear means on the



Seven people were pulling a fishing net.

1st person = 200N to right

2nd person = 100N to right

3rd person = 400N to right

4th person = 250N to right

5th person = 200N to right

6th person = 150N to right

7th person = 100N to right

R =

R =

R =

The force of many forces acting on the direction is the of all forces.

The direction of the force also will be on the direction

Resultant force of collinear forces acting on opposite directions



In a tug o' war

Nimal exerts 5N to West, Kamal exerts 12N to East, Wimal exerts 10N to West, Ranil exerts 8N to East, Ajith exerts 8N to West and Ranjith exerts 6N to East. What will be the resultant force?

$R = \dots\dots\dots$ of forces to - of forces to

$R = (F_1 + F_2 + F_3 + \dots) - (F_4 + F_5 + F_6 + \dots)$

$R = (\dots\dots\dots) - (\dots\dots\dots)$

$R = \dots\dots\dots - \dots\dots\dots$

$R = \dots\dots\dots$

$R = \dots\dots\dots$

When forces are acted on directions, the force will be the The direction of the force will be the direction of the force.

Resultant of two parallel forces



One bull exerts 200N and the other bull exerts 300N. Both bulls pull the cart to North.
Find the resultant force.

R =

R =

R =

When two parallel forces are acting on the same direction, add them to find the resultant force.

Resultant forces of two inclined forces

Find the resultant force when 5N force is towards North & 12N of force is towards East

The direction of the force will be 5N & 12N but towards the 12N force. The magnitude of the resultant force R will be

$R^2 = \dots\dots\dots$

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$R = \dots\dots\dots$

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