

**PHYSICS****WORK**WORK - Mechanical Work

Definition: -

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Work is accomplished when a force moves an object a certain distance in the direction of the force.

Ex: Pushing a desk across the floor

Work can be determined by:

W =

$$W = F \times d$$

F =

d =

Ex: How much work is done by a person pushing a desk with an applied force of 10N for a displacement of 10m?

**PHYSICS****WORK**NEGATIVE WORK

Definition: -

Ex: Calculate the work done by a -5 N force of friction on a desk that moves 10 m.

TOTAL WORK or NET WORK

Definition: - The sum of all the work being applied to the system.

Ex: Calculate the total work done on a desk that moves 10 m as a 10 N applied force and -5 N frictional force work on it.

**PHYSICS****WORK**ZERO WORK**Definition:****Examples:****Angled Vectors**

Ex. A young fella pulls his wagon down the sidewalk a distance of 10 m with an applied force of 50 N [30° above the horizontal]. How much work is the boy doing?



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WORK WORK

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