

Energy Ch-4

Home Assignment

① Define work.

A) The work done by a force on a body is equal to ~~the~~ ^{the} product of the force applied and distance moved by the

body in the direction of force i.e.
2) when does a force perform work?

A) work said to be done when the applied force makes the body move (there is displacement of the body).

3) state two conditions when no work is done by a force.

A) The two conditions when no work is done by force are:-

i) There is no displacement of the body $= 0$

ii) The displacement is normal to the direction of force i.e. $\theta = 90^\circ$

4) in which of the following cases is work being done:-

A) b) a boy climbing up the stairs

d) a girl moving on the road.

5) A coolie is moving on a road with ~~on~~ luggage on his head. does he perform against the force of gravity? Give reason for your answer.

A) No he performs no force against gravity because he is working with a luggage in his head. Is doing work.

6) The moon is revolving around the earth in a circular path. How much work is done by the moon?

A) He does no work It is revolve due to the earth's gravity and the work done is 0.

7) Write the expression for work done by a force.

A) The work done by a force is 0 if the body moves in a direction perpendicular direction of force.
~~eg → when a stone held the~~

8) State the S.I unit of work and define it.

A) The SI unit of work is Joule.

One Joule of work is said to be done if one newton when acting on a body moves it by 1 meter in the direction of force.

9) State two factors on which the work done on a body depends.

A) The work done by a body depends upon the

1) The magnitude of the amount of work.

10) Define the term 'energy'.

A) Energy is the capacity of doing work.

11) State the S.I unit of energy.

A) The SI unit of energy is ~~Joule~~ Joule.

12) Define 1 joule of energy.

A) One Joule of work is said to be done if one newton force is acting on a force applied and the distance moved by the body in the direction of force.