



What is the equation linking...

- E_k = kinetic energy
- m = mass
- v = speed

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Q-1



What is the equation linking...

- E_p = gravitational potential energy
- m = mass
- g = gravitational field strength
- h = height

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Q-2



What is the equation linking...

- P = power
- E = energy transferred
- t = time

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Q-3



What is the equation linking...

- P = power
- W = work done
- t = time

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Q-4



What is the equation linking...

- Efficiency
- Useful power out
- Total power in

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Q-5



What is the equation linking...

- Efficiency
- Useful energy out
- Total energy in

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Q-6



$$E_p = mgh$$

Gravitational potential energy =
mass x gravity x height

A-2

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$$E_k = \frac{1}{2} mv^2$$

Kinetic energy =
 $\frac{1}{2}$ x mass x velocity²

A-1

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$$P = \frac{W}{T}$$

Power = work / time

A-4

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$$P = \frac{E}{T}$$

Power = energy / time

A-3

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Efficiency = $\frac{\text{useful energy out}}{\text{total energy in}}$

A-6

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Efficiency = $\frac{\text{useful power out}}{\text{total power in}}$

A-5

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What is the equation linking...

- * $Q = \text{Charge}$
- * $I = \text{Current}$
- * $t = \text{Time}$

Q-7

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What is the equation linking...

- * $V = \text{Potential difference}$
- * $I = \text{Current}$
- * $R = \text{Resistance}$

Q-8

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What is the equation linking...

- * $P = \text{Power}$
- * $V = \text{Potential difference}$
- * $I = \text{Current}$

Q-9

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What is the equation linking...

- * $P = \text{Power}$
- * $I = \text{Current}$
- * $R = \text{Resistance}$

Q-10

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What is the equation linking...

- * $E = \text{Energy}$
- * $Q = \text{Charge}$
- * $V = \text{Potential difference}$

Q-11

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What is the equation linking...

- * $\rho = \text{density}$
- * $m = \text{mass}$
- * $V = \text{volume}$

Q-12

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$$V = IR$$

Potential difference =
current x resistance

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A-8



$$Q = It$$

Charge = current x time

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A-7



$$P = I^2R$$

Power = current² x
resistance

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A-10



$$P = VI$$

Power = potential
difference x current

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A-9



$$\rho = \frac{m}{V}$$

V

Density = mass / volume

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A-12



$$E = QV$$

Energy = charge x
potential difference

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A-11



What is the equation linking...

- ✿ $W = \text{weight}$
- ✿ $m = \text{mass}$
- ✿ $g = \text{gravitational field strength}$

Q-13

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What is the equation linking...

- ✿ $W = \text{work done}$
- ✿ $F = \text{force}$
- ✿ $s = \text{distance}$

Q-14

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What is the equation linking...

- ✿ $F = \text{force}$
- ✿ $k = \text{spring constant}$
- ✿ $e = \text{extension}$

Q-15

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What is the equation linking...

- ✿ $M = \text{moment}$
- ✿ $F = \text{force}$
- ✿ $d = \text{distance}$

Physics only Q-16

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What is the equation linking...

- ✿ $p = \text{pressure}$
- ✿ $F = \text{force}$
- ✿ $A = \text{area}$

Physics only

Q-17

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What is the equation linking...

- ✿ $s = \text{distance}$
- ✿ $v = \text{speed}$
- ✿ $t = \text{time}$

Q-18

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$$W = Fs$$

Work done = force x
distance

A-14

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$$W = mg$$

Weight = mass x gravitational
field strength

A-13

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$$M = Fd$$

Moment = force x
distance

A-16

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$$F = ke$$

Force = spring
constant x extension

A-15

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$$s = vt$$

distance = speed x
time

A-18

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$$p = \frac{F}{A}$$

A

Pressure = force / area

A-17

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What is the equation linking...

- * a = acceleration
- * Δv = change in velocity
- * t = time

Q-19

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What is the equation linking...

- * F = force
- * m = mass
- * a = acceleration

Q-20

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What is the equation linking...

- * p = momentum
- * m = mass
- * v = velocity

higher tier only Q-21

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What is the equation linking...

- * v = velocity
- * f = frequency
- * λ = wavelength

Q-22

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Blank

Q-23

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Blank

Q-24

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$$F = ma$$

Force = mass x
acceleration

A-20

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$$a = \frac{\Delta v}{t}$$

†

acceleration = change in
velocity / time

A-19

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$$v = f\lambda$$

velocity = frequency x
wavelength

A-22

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$$p = mv$$

momentum = mass x
velocity

A-21

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blank

A-24

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blank

A-23

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