N5 Physics Quantity, Symbol, Unit, Unit Symbol

d°=1[a0]

FOR EACH EQUATION NOTE THE QUANTITY HIGHLIGHTED, STATE ITS UNIT AND UNIT SYMBOL AND WHETHER IT IS A SCALAR OR VECTOR QUANTITY. UP TO 4 MARKS PER QUESTION, KEEP YOUR SCORE. HOW MANY CARDS CAN YOU COMPLETE BEFORE MAKING A MISTAKE OR FORGETTING ONE?

arcsin(2)

Xn+1 =



distance

metre

m







displacement metre m vector





Time for the change

second









Acceleration

metres per second squared ms⁻² or m/s² vector





Final velocity metres per second ms⁻¹ or m/s vector





Initial/starting velocity metres per second ms⁻¹ or m/s vector





Change in velocity
 metres per second
 ms⁻¹ or m/s
 vector



' \bar{v} ' as in $s = \bar{v}t$

Average velocity
 metres per second
 ms⁻¹ or m/s
 vector



' \bar{v} ' as in $d = \bar{v}t$

Average speed
 metres per second
 ms⁻¹ or m/s
 scalar





Change in velocity
 metres per second
 ms⁻¹ or m/s
 vector



'F' as in F = ma

forceNewton

Nvector



'm' as in F = ma



kilogram

►kg ►scalar





Acceleration due to gravity/ gravitational field strength

- metres per second squared/ newtons per kilogram
- $\blacktriangleright ms^{-2} \text{ or } m/s^2 \text{ or } N \text{ kg}^{-1}$

vector



'W' as in W = mg

Weight or (Force of gravity)Newton



Vector

Never use gravity alone in an exam



'E_p' as in $E_p = mgh$ ¹⁶

(gravitational) potential EnergyJoule

J (must look like a capital)
scalar



'h' as in $E_p = mgh$

heightmetre

m







Kinetic Energy

Joule

J (must look like a capital) scalar





speed metres per second ms⁻¹ or m/s scalar



'E_w' or W as in $E_w = Fd^{20}$

Work done

Joule

J (must look like a capital) scalar



'F' as in $E_w = Fd$

force

Newton

N





'Q' as in Q = It 22

chargecoloumb

Cscalar



'V' as in V = IR

voltage volt v V scalar



'I' as in V = IR



bampere

A





'R' as in V = IR

resistance

bohm







 $V_2 \text{ as in } V_2 = \begin{pmatrix} R_2 \\ R_1 + R_2 \end{pmatrix}$ 26

Voltage across resistor 2 Volt V scalar





Resistance of resistor 2

bohm







28 R_2 $V_s as in V_2 = \left(\frac{R_1}{R_1 + R_2}\right)$ S

Supply Voltage Volt V scalar



$R_T \text{ as in } \frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2}$ 29

Total Resistance in parallel

bohm









Voltage across resistor 1 Volt V scalar



'R_T' as in $\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2} + \cdots$ 31

Total resistance of resistors in parallel

bohm







'R_T' as in $R_T = R_1 + R_2 + \cdots$

Total resistance of resistors in series

bohm







'E' as in E = QV

Energy Joule J (must look like a capital) /4 scalar

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'Q' as in E = QV

chargecoloumb

Cscalar



'P' as in $P = \frac{E}{t}$ 35

Power Watt (yes Watt is the unit of power) W scalar



'P' as in P = IV 36

power Watt (yes Watt is the unit of power!) W





'I' as in $P = I^2 R$

current

bampere

A







voltage Volt V scalar



${}^{5}\text{E}_{H}{}^{\prime} \text{ as in } E_{H} = cm \Delta T$

Heat Energy

Joule

J (must look like a capital) scalar



'c' as in $E_H = cm\Delta T$ ⁴⁰

Specific heat capacity
 Joules per kilogram per degree Celsius or

Joules per kilogram per kelvin
J kg⁻¹ °C⁻¹ or J kg⁻¹ K⁻¹
scalar



' ΔT ' as in $E_H = cm\Delta T$

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· Find him at

Change in temperature degree Celsius or Kelvin ► °C or K

► Scalar

NB It is a change of temperature a change of 1 K is the same as a change of 1 °C · Keeping you afloat with Physics • https://mrsphysics.co.uk

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Heat energy required to change the state of a substance

Joule

J (must look like a capital) scalar



'1' as in $E_H = ml$ 43

Specific latent heat
 Joules per kilogram
 Jkg⁻¹ or J/kg
 scalar







square metre m²



It is incorrect to say metres square or metres squared!





▶ area

Square metre m²







pressure

Pascal or Newton per square metre

Pa







Pressure

Pascals

Pa or (Nm⁻²)





$p_1' \text{ as in } p_1V_1 = p_2V_2$ 48

Original Pressure
Pascals
Pa or (Nm⁻²)
scalar



45 'T₁' as in $\frac{p_1}{T_1} = \frac{p_2}{T_2}$

• Original temperature (try to remember to put K in brackets!) $\frac{p_1}{T_1(K)} = \frac{p_2}{T_2(K)}$









'T' as in $\frac{pV}{T} = constant$ 50

▶ temperature













frequency Hertz Hz scalar





Number of waves

No units





'λ' as in v=fλ

Wavelength of the wave

metre







'f' as in v=f λ 55

Frequency of the wave Hertz Hz scalar



'v' as in $v=f\lambda$

Speed of the wave
metres per second
ms⁻¹ or m/s
scalar





frequency Hertz Hz scalar





periodsecond

S







Number of disintegrationsNo unit





Activity Becquerels Bq scalar





Absorbed Dose

Gray

For the second state of t







Energy Joule J (must look like a capital) /4 scalar





mass

kilogram

►kg ►scalar



'H' as in $H = Dw_r$

Equivalent Dose Sievert Sv (often mSv, μSv, usually no need to covert) scalar





Equivalent Dose rate Sievert per hour or year or day etc Svh⁻¹, Svy⁻¹ (often mSv, μSv, usually no need to covert) scalar

