Maths for Physics

TABLE 1

|  | Value | What is it? | Expressed in <br> standard form |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

```
NO FRACTIONS
NO MULITIPLES of ,
```

    RECURRING
    
## TABLE 4

| Initial value | Change | \% | Final value |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## TABLE 5

| Calculation | Answer |
| :---: | :---: |
|  |  |
|  |  |
|  |  |

Maths for Physics

TABLE 9

| Angle indegrees | Angle in radians |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

7. Simple trigonometry.


8. Re-arranging formulae
$\mathcal{E S S E S N I} I \mathcal{A L}$




9. Performing complex calculations on a calculator

## TABLE 11

|  | Equation | subject | Values |  |
| :---: | :---: | :---: | :--- | :--- |
| 1 | $\mathrm{~F}=\mathrm{ma}$ | m | $\mathrm{F}=4.00 \mathrm{kN} \quad \mathrm{a}=2.00 \mathrm{~ms}^{-2}$ |  |
| 2 |  |  |  |  |
| 3 |  | r | $\mathrm{s}=56.0 \mathrm{~cm}$ |  |
| 4 | $\mathrm{v}=\mathrm{u}+\mathrm{at}$ | u | $\mathrm{v}=10.0 \mathrm{~ms}^{-1} \quad \mathrm{a}=2.50 \mathrm{~ms}^{-2} \quad \mathrm{t}=2.00 \mathrm{~s}$ |  |
| 5 | $\mathrm{v}=\mathrm{u}+\mathrm{at}$ | t | $\mathrm{v}=10.0 \mathrm{~ms}^{-1} \quad \mathrm{u}=0.00 \mathrm{~ms}^{-1} \quad \mathrm{a}=2.0 \mathrm{~ms}^{-2}$ |  |
| 6 | $\mathrm{I}_{\mathrm{o}}=\mathrm{I}_{\mathrm{rms}}$ | $\mathrm{I}_{\mathrm{rms}}$ | $\mathrm{I}_{0}=8.00 \mu \mathrm{~A}$ |  |
| 7 | $\mathrm{~s}=\mathrm{ut}+1 / 2 \mathrm{at}^{2}$ | u | $\mathrm{s}=200 \mathrm{~m}$ | $\mathrm{a}=5.00 \mathrm{~ms}^{-2} \quad \mathrm{t}=8.00 \mathrm{~s}$ |
| 8 | $\mathrm{E}=1 / 2 \mathrm{mv}^{2}$ | v | $\mathrm{E}=12.0 \mathrm{MJ}$ | $\mathrm{m}=6.00 \times 10^{4} \mathrm{~kg}$ |
| 9 | $\frac{E}{Q}$ | Q | $=12.0 \mathrm{kV}$ | $\mathrm{E}=360 \mathrm{~mJ}$ |

$10 \quad I \quad \frac{Q}{t}$

Maths for Pfysics Basic skills

## 11. $\mathcal{A N S} \mathcal{W} \mathcal{E R S}$

1. Expressing numbers in standard form.

|  | Value | What is it? | Expressed in <br> standard form |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Maths for Physics Basic skills
5. Prefixes used in Physics

| Prefix value | Base unit value |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| Base unit value | Prefix value |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

6. Converting betwe en units

| Convert the following | Into this unit | Answer |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

Maths for Pfysics Basic skills
9. Performing complex calculations on a calculator
10. Answering a question (putting all the skills together)

|  |  |  |
| :--- | :--- | :--- |
|  | $\mathrm{m}=\mathrm{F} / \mathrm{a}$ | $\mathrm{m}=2.00 \times 10^{3} \mathrm{~kg}$ |

