## Questions

## Maths Paper 1 - Foundation

Simplify
(a) $p^{4} \times p^{3}$
(b) $p^{7} \div p^{3}$
(c) $\left(\frac{3}{4}\right)^{-2}$

Complete the table

| Fraction | Decimal | Percentage |
| :---: | :---: | :---: |
| $\frac{3}{4}$ |  |  |
|  | 0.03 |  |
|  |  | $80 \%$ |

Find $\frac{1}{5}$ of 120
Find $\frac{3}{5}$ of 120
Factorise
(a) $x^{2}+8 x+16$
(b) $x^{2}-8 x+7$

Write 50 g as a ratio of 75 g .
Give your answer in its simplest form

Share $£ 350$ in the ratio 4:1:2

Work out $\frac{2}{3}+\frac{6}{8} \quad$ Work out $\frac{2}{5} \times \frac{3}{7}$

Work out $2 \frac{2}{3}-\frac{6}{8} \quad$ Work out $2 \frac{1}{3} \div \frac{3}{5}$

Express 60 as a product of prime factors

Find the HCF of 60 and 90

Write down the value of:
(a) $\operatorname{Sin}(30)$
(b) $\operatorname{Cos}(60)$

If $x=5$ and $Z=15$
Find the value of $y$ when

$$
3 x+y=15
$$

## Examples/

## Maths Paper 1 - Foundation

## Key words

Convert 3200 into standard form $3200=3.2 \times 10^{3}$

Work out $4.2 \times 10^{4}+8 \times 10^{3}$.
Give your answer in standard form
$42,000+8000=50,000$
$50,000=5 \times 10^{4}$

Volume of a cube $=$ base $x$ height $x$ depth

Volume of a cylinder $=\pi \times r^{2} \times$ depth Remember to keep your answer in terms of $\pi$, unless asked to estimate.
$\pi \approx 3$


Ordering FDP.
Convert all values to decimals

Percentage to decimal $=\div 100$

Fraction to decimal $=$ top $\div$ bottom

The volume of a shape is $20 \mathrm{~cm}^{3}$.
The mass of the shape is 120 g .
Find the density.
Density $=\mathrm{g}: \mathrm{cm}^{3}$

$$
\begin{gathered}
120: 20 \\
6: 1 \\
\text { Density }=6 \mathrm{~g} / \mathrm{cm}^{3}
\end{gathered}
$$

|  | $0^{\circ}$ | $30^{\circ}$ | $45^{\circ}$ | $60^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\operatorname{Sin}$ | 0 | $\frac{1}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{3}}{2}$ | 1 |
| $\operatorname{Cos}$ | 1 | $\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{1}{2}$ | 0 |
| $\operatorname{Tan}$ | 0 | $\frac{\sqrt{3}}{3}$ | 1 | $\sqrt{3}$ | Undefined |

Estimate = make the question easier by rounding

Evaluate = work out the answer

Express = Write in the different way

Simplify = Change the appearance
Angles in regular polygons:
Sum of the interior angles $=(n-2) \times 180$
To find an interior angle $=\frac{\text { total }}{n} n=$ number of angles/sides.

Sum of the exterior angles $=360^{\circ}$
To find an exterior angle $=\frac{360}{n} \quad n=$ number of angles/sides
Always include a key on a stem and leaf diagram.

Always include titles and labels on a bar chart.

