WHY ARE TIMES TABLES USEFUL?

TIMES TABLES ROCK STARS

NUMBER AND CALCULATION

WRITTEN MULTIPLICATION

$$\begin{array}{r} 758 \\ \times\ \ 8 \\ \hline 6064 \\ \hline 46 \end{array}$$

WRITTEN DIVISION

$$6\overline{)654}\ 109\ (5)$$

MENTAL MULTIPLICATION AND DIVISION

Using the facts you know to quickly work out answers in your head.

USING KNOWN FACTS TO FIND OTHERS WITH PLACE VALUE

$4 \times 6 = 24$
$40 \times 6 = 240$
$40 \times 60 = 2400$
$0.4 \times 6 = 2.4$
$0.4 \times 0.6 = 0.24$

WORD PROBLEMS

Sam can fit 12 tins of soup in each box, he has 11 boxes. How many tins of soup will he need to fill the boxes?

$12 \times 11 = 132$

ALGEBRA

$4x = 24 \quad x = 6$
$7x = 42 \quad x = 6$
$9x = 81 \quad x = 9$

RATIO

In a school playground, the ratio of boys to girls is 2:3. If there are 18 girls, how many boys are there?

PROPERTIES OF NUMBER

FINDING FACTORS

Factors of 12

$1 \times 12,\ 2 \times 6,\ 3 \times 4$

FACTORS

FINDING MULTIPLES

Multiples of 12

12, 24, 36, 48, 60, 72 .....

FINDING COMMON FACTORS

Factors of 12 $(1) \times 12, (2) \times (6), (3) \times 4$

Factors of 18 $(1) \times 18, (2) \times 9, (3) \times (6)$

FINDING COMMON MULTIPLES

Multiples of 3

3, 6, 9, (12), 15, 18, 21, (24), 27, ...

Multiples of 4

4, 8, (12), 16, 20, (24)...

FINDING PRIME AND COMPOSITE NUMBERS

Prime numbers have only 2 factors

$(1) \times (7) \quad (1) \times (3) \quad (1) \times (5)$

Composite numbers have more than 2 factors

$(1) \times (6), (2) \times (3) \quad (1) \times (8), (2) \times (4)$

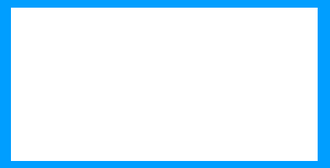
SQUARE AND CUBE NUMBERS

$2 \times 2 = 4$ ← Square

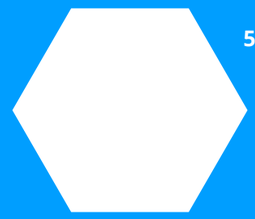
$3 \times 3 \times 3 = 27$ ← Cube

SHAPE

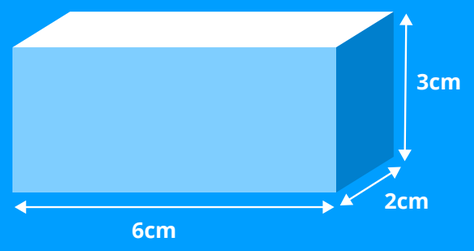
CALCULATING AREA: 6cm × 3cm = 18cm²



FINDING THE PERIMETER OF REGULAR POLYGONS

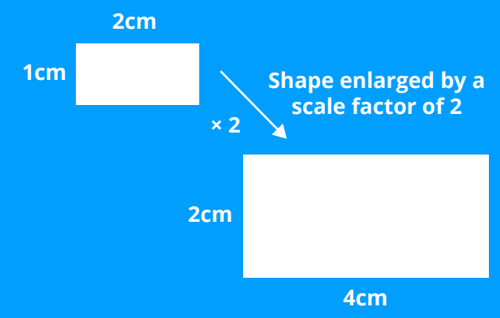


CALCULATING VOLUME



6cm × 2cm × 3cm = 36cm³

SCALING SHAPES



FRACTIONS

SIMPLIFYING FRACTIONS

$\frac{2}{6} \longrightarrow \frac{1}{3}$

ADDING/SUBTRACTING FRACTIONS

$\frac{1}{3} + \frac{3}{6} = \frac{2}{6} + \frac{3}{6} = \frac{5}{6}$ (× 2 on the first fraction, × 2 on the second)

MULTIPLYING/DIVIDING FRACTIONS

$\frac{1}{2} \times \frac{2}{4} = \frac{1 \times 2}{2 \times 4} = \frac{2}{8} = \frac{1}{4}$

FINDING FRACTIONS OF WHOLE NUMBERS

$\frac{1}{6}$ OF $24 = 4$

ORDERING FRACTIONS

Put these fractions in order, largest first

$\frac{1}{2}\ \frac{6}{8}\ \frac{2}{5} \longrightarrow \frac{6}{8}\ \frac{1}{2}\ \frac{2}{5}$

CONVERTING BETWEEN MIXED NUMBERS AND IMPROPER FRACTIONS

$2\frac{1}{2} = \frac{5}{2}$

AND MANY MORE!