

P4 Maths Cheat Sheet

Every formula and key fact for Primary 4, from the latest (2026) MOE syllabus

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NUMBER & ALGEBRA

Numbers to 100 000

Term 1

Ten thousands	Thousands	Hundreds	Tens	Ones
4	7	8	0	3

Place value to 100 000

Each place is worth 10 times the place to its right.

the 4 in 47 803 $\rightarrow 4 \times 10\,000 = 40\,000$

Ten thousands	Thousands	Hundreds	Tens	Ones
7	2	4	1	9
7	2	1	9	4

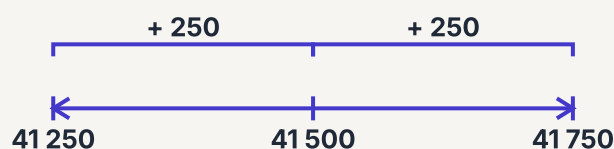
Compare and order

Compare place by place from the left. The first place that differs decides: 72 419 is greater than 72 194.

Numeral	In words
60 308	sixty thousand, three hundred and eight

Numerals and words

A zero keeps an empty place, in numerals and in words.



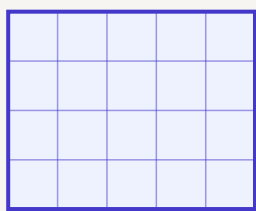
Number patterns

Find the step first, then use it.

next $\rightarrow 41\,750 + 250 = 42\,000$

Factors and Multiples

Term 1



Factors come in pairs

List them in pairs, starting from $1 \times$ the number, so none is missed.

$$1 \times 20 = 20$$

$$2 \times 10 = 20$$

$$4 \times 5 = 20$$

	Left over	Is 7 a factor?
$91 \div 7$	0	yes
$94 \div 7$	3	no

Is it a factor?

Divide. Nothing left over means it is a factor, and the number is a multiple of it.

$$91 \div 7 = 13$$

$$94 \div 7 = 13 \text{ R } 3$$

	Factors
20	1, 2, 4, 5, 10, 20
30	1, 2, 3, 5, 6, 10, 15, 30
Both	1, 2, 5, 10

Common factors

List the factors of both numbers. The ones in both lists are common factors.

	Multiples
4	4, 8, 12, 16, 20, 24
6	6, 12, 18, 24, 30, 36
Both	12, 24

Common multiples

List the multiples of each number. The ones in both lists are common multiples.



NUMBER & ALGEBRA

Four Operations of Whole Numbers Term 1



Rounding

Look at the digit to the right of the place.
5 or more, round up.

nearest 10 $\rightarrow 36\,482 \approx 36\,480$
nearest 100 $\rightarrow 36\,482 \approx 36\,500$
nearest 1000 $\rightarrow 36\,482 \approx 36\,000$

$$\begin{array}{r} 326 \\ \times 24 \\ \hline 1304 \quad 326 \times 4 \\ 6520 \quad 326 \times 20 \\ \hline 7824 \end{array}$$

Multiply in columns

Multiply by the ones, then by the tens,
then add the two rows.

$$326 \times 24 = 1304 + 6520 = 7824$$

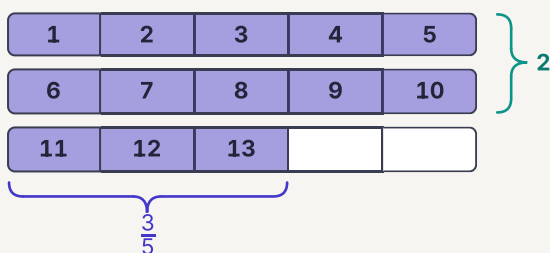
$$\begin{array}{r} 456R3 \\ 6 \overline{) 2739} \\ \underline{24} \\ 33 \\ 30 \\ \underline{30} \\ 9 \\ 36 \\ \underline{36} \\ 3 \end{array}$$

Long division

From the left: divide, multiply, subtract,
bring down.

$$2739 \div 6 = 456 \text{ R } 3$$

Fractions Term 2

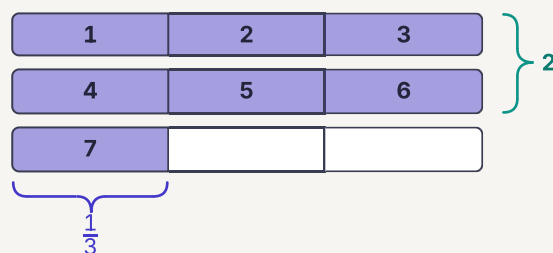


Mixed number to improper fraction

Each whole is 5 fifths. Count all the fifths.

$$\text{fifths} \rightarrow 2 \times 5 + 3 = 13$$

$$2\frac{3}{5} = \frac{13}{5}$$

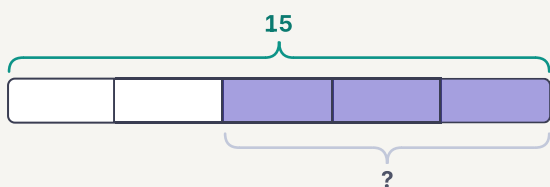


Improper fraction to mixed number

Divide the numerator by the denominator. What is left over is
the fraction.

$$7 \div 3 = 2 \text{ R } 1$$

$$\frac{7}{3} = 2\frac{1}{3}$$

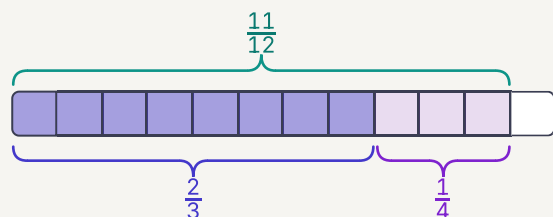


Fraction of a set

Cut the set into equal units, one for each part. Find 1 unit first.

$$1 \text{ unit} \rightarrow 15 \div 5 = 3$$

$$3 \text{ fifths of } 15 \rightarrow 3 \times 3 = 9$$



Add or subtract fractions

Make the denominators the same, then add or take away
the numerators.

$$\frac{2}{3} + \frac{1}{4} = \frac{8}{12} + \frac{3}{12} = \frac{11}{12}$$

$$\frac{7}{10} - \frac{2}{5} = \frac{7}{10} - \frac{4}{10} = \frac{3}{10}$$



NUMBER & ALGEBRA

Decimals Term 3

Ones	.	Tenths	Hundredths	Thousandths
2	.	4	6	5

Tenths, hundredths, thousandths

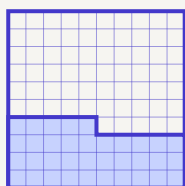
Each place is worth a tenth of the place to its left.

the 6 in 2.465 $\rightarrow \frac{6}{100} = 0.06$

	Tenths	Hundredths
0.70	7	0
0.68	6	8

Compare and order decimals

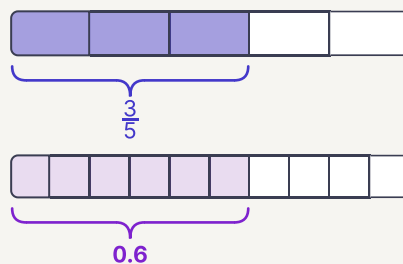
Line up the decimal points. Compare the tenths first, then the hundredths: 0.7 is greater than 0.68.



Decimal to fraction

Write it over 10, 100 or 1000, then simplify.

$$0.35 = \frac{35}{100} = \frac{7}{20}$$



Fraction to decimal

Make the denominator 10 or 100.

$$\frac{3}{5} = \frac{6}{10} = 0.6$$

$$\frac{7}{25} = \frac{28}{100} = 0.28$$



Rounding decimals

Look at the next digit to the right. 5 or more, round up.

nearest whole number $\rightarrow 5.374 \approx 5$
 1 decimal place $\rightarrow 5.374 \approx 5.4$
 2 decimal places $\rightarrow 5.374 \approx 5.37$

$$\begin{array}{r} 5 \text{ } 10 \\ 5 \text{ } \cancel{6} \text{ } \cancel{0} \\ - 1 \text{ } 2 \text{ } 5 \\ \hline 4 \text{ } 3 \text{ } 5 \end{array}$$

Add or subtract decimals

Line up the decimal points. Fill an empty place with 0.

$$5.6 - 1.25 = 5.60 - 1.25 = 4.35$$

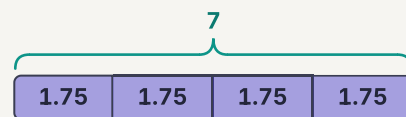
$$\begin{array}{r} 1 \text{ } 2 \\ 3 \text{ } 2 \text{ } 6 \\ \times 4 \\ \hline 1 \text{ } 3 \text{ } 0 \text{ } 4 \end{array}$$

 $\times$ or $\div$ by a 1-digit number

Work as with whole numbers. Keep the decimal point in line.

$$3.26 \times 4 = 13.04$$

$$8.4 \div 6 = 1.4$$


A whole number $\div$ a whole number

Write zeros after the point to keep dividing. Round the answer when the question asks.

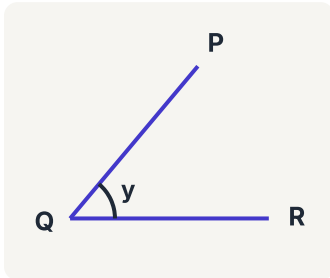
$$7 \div 4 = 1.75$$

$$2 \text{ decimal places} \rightarrow 5 \div 3 \approx 1.67$$



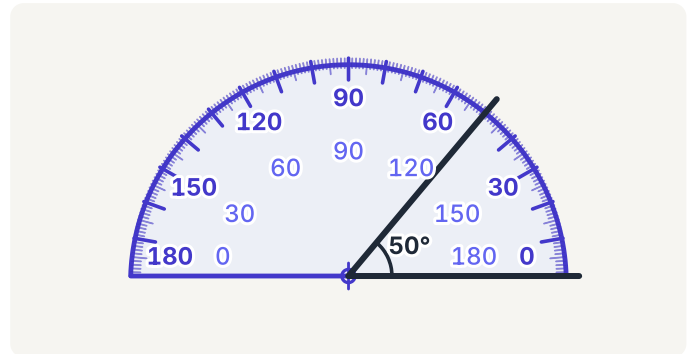
MEASUREMENT & GEOMETRY

Angles Term 2



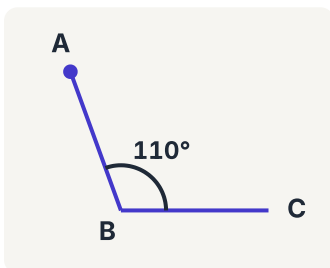
Naming an angle

By three letters, the corner in the middle: $\angle PQR$. Or by one: $\angle y$.



Measuring with a protractor

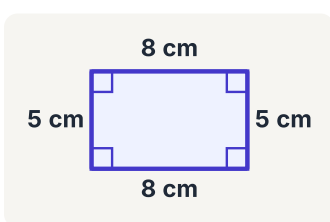
Centre on the corner, one arm on 0° . Count up from that 0 to the other arm.



Drawing an angle

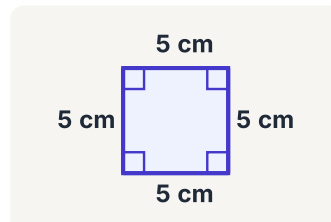
Draw one arm. Centre the protractor on its end, 0° on the arm. Mark the size, then join.

Rectangles and Squares Term 2



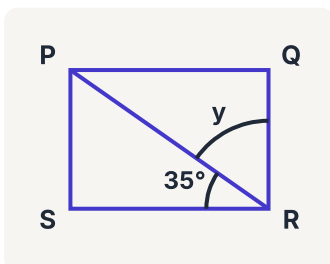
Rectangle

Four right angles. Opposite sides are equal and parallel.



Square

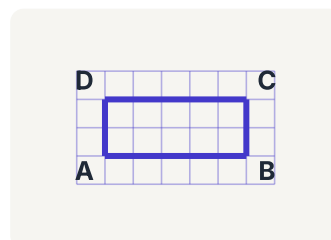
Four right angles. All four sides are equal, and opposite sides are parallel.



An unknown angle

Every corner is 90° .

$$\angle y \rightarrow 90 - 35 = 55^\circ$$



Drawing on a grid

Count the squares: opposite sides the same length, every corner a right angle.



MEASUREMENT & GEOMETRY

Area and Perimeter Term 4

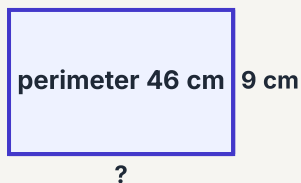


The breadth from the area

$$\text{area} \div \text{length}$$

EXAMPLE

$$\text{breadth} \rightarrow 84 \div 12 = 7 \text{ cm}$$



The length from the perimeter

$$\text{perimeter} \div 2 - \text{breadth}$$

EXAMPLE

$$\text{length} \rightarrow 46 \div 2 - 9 = 14 \text{ cm}$$



The side from the perimeter

$$\text{perimeter} \div 4$$

EXAMPLE

$$\text{side} \rightarrow 36 \div 4 = 9 \text{ cm}$$



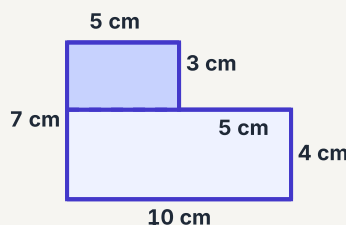
The side from the area

$$\text{side} \times \text{side} = \text{area}$$

EXAMPLE

$$7 \times 7 = 49$$

$$\text{side} \rightarrow 7 \text{ cm}$$



Composite figures

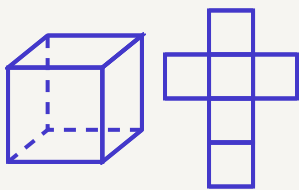
Area: split into rectangles, then add. Perimeter: the outside edge only.

$$\text{area} \rightarrow 10 \times 4 + 5 \times 3 = 55 \text{ cm}^2$$

perimeter

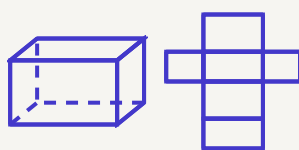
$$\rightarrow 10 + 4 + 5 + 3 + 5 + 7 = 34 \text{ cm}$$

Nets Term 4



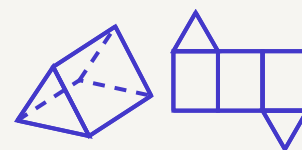
Cube

6 equal square faces. A dotted line is a hidden edge.



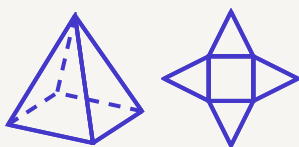
Cuboid

6 rectangle faces, in 3 matching pairs.



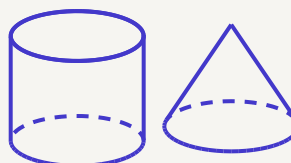
Prism

2 matching ends, and a rectangle for each side.



Pyramid

A base, and a triangle for each side, meeting at the top.



Cylinder and cone

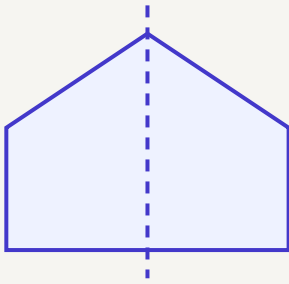
A cylinder has 2 circle faces and a curved surface. A cone has 1 circle face and a curved surface. Their nets are not in the P4 syllabus.



MEASUREMENT & GEOMETRY

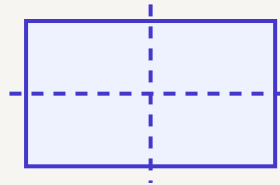
Symmetry

Term 4



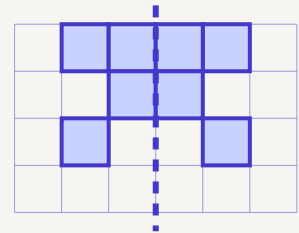
Line of symmetry

Fold along it: the two halves match exactly.



Test a line

Fold it in your head: do the two halves match? A rectangle has 2 lines of symmetry.



Complete on a grid

Each shaded square has a partner the same distance from the line, on the other side.

STATISTICS

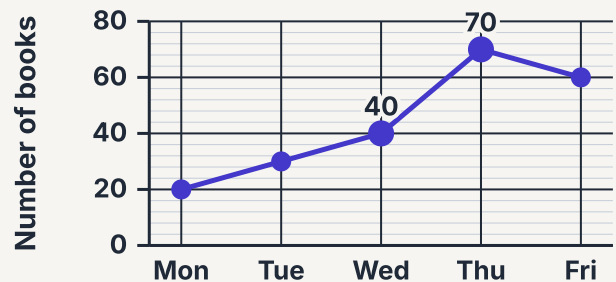
Tables and Line Graphs

Term 1

	Red	Blue	Total
Box A	28	6	34
Box B	?	9	26
Total	45	15	60

Complete a table

A total is the sum of its row or its column.
the missing number $\rightarrow 45 - 28 = 17$



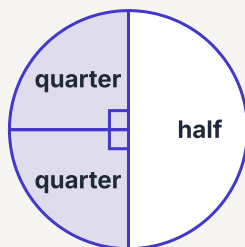
Read a line graph

Read each point against the scale. Where the line goes up most is the biggest change.

Wed to Thu $\rightarrow 70 - 40 = 30$

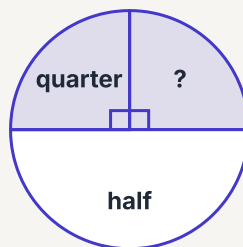
Pie Charts

Term 3



A sector is a fraction of the whole

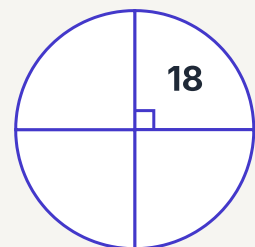
A right-angle mark is a quarter of the circle. A straight line across the centre cuts it in half.



A part from the total

The fraction $\times$ the total.

a quarter of 120 $\rightarrow \frac{1}{4} \times 120 = 30$



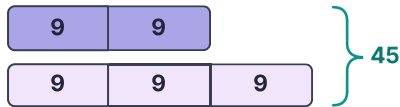
The total from a part

A quarter is 18 pupils, so the whole circle is 4 quarters.

total $\rightarrow 4 \times 18 = 72$



PROBLEM SUMS: HOW TO SPOT EACH METHOD



Units and parts method

"Find 1 unit first"

Draw the parts as equal units: find 1 unit, then scale up.

First digit	Numbers made
2	258, 285
5	528, 582
8	825, 852

Systematic list

"How many different ways"

List every way in order, so none is missed or counted twice.

BEFORE



AFTER

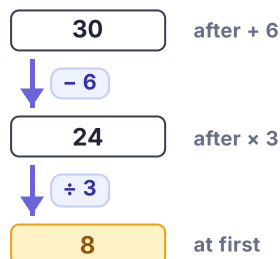


change

Before and after method

"Something changes partway"

Draw before and after, then find what changed and what did not.



Working backwards

"Start from the end"

Start from the end and undo each step in reverse.

	Cups	Plates	Cost
1 set	1	1	\$2
15 sets	15	15	\$30

Grouping method

"Sold in fixed sets"

Find what one set is worth. Then the total $\div$ one set = how many sets.

On the paper

- Answer in the unit the question gives.
- Show your working: a correct method can earn a mark even when the answer is wrong.

Units

1 km = 1000 m

1 m = 100 cm

1 kg = 1000 g

1 l = 1000 ml

1 h = 60 min

