

P3 Maths Cheat Sheet

Every formula and key fact for Primary 3, from the latest (2026) MOE syllabus

INSIDE

- Number & Algebra p. 1
- Measurement & Geometry p. 4
- Statistics p. 7
- Problem sums · On the paper p. 8

NUMBER & ALGEBRA

Numbers to 10 000 Term 1

Thousands	Hundreds	Tens	Ones
4	0	2	5

Place value

A digit's place gives its value. A 0 keeps an empty place.

| the 4 in 4025 → $4 \times 1000 = 4000$

Numeral	In words
4305	four thousand, three hundred and five

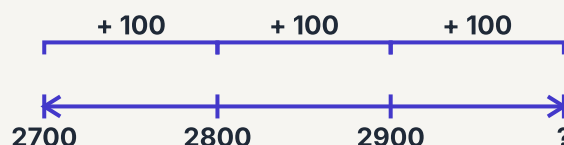
Numerals and words

Say the thousands, then the hundreds, then the rest.

Thousands	Hundreds	Tens	Ones
4	3	2	1
4	2	9	9

Compare and order

Compare from the left. The first digit that is different tells which number is greater: $4321 > 4299$.



Count on and number patterns

Find the step, then keep adding it.

| next → $2900 + 100 = 3000$

$$\begin{array}{r} & & 1 & & \\ 2 & 4 & 6 & 8 & \\ + & 1 & 3 & 2 & 5 \\ \hline 3 & 7 & 9 & 3 & \end{array}$$

Add in columns

Add the ones first. 10 ones make 1 ten: regroup it into the tens.

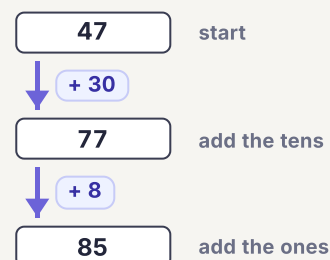
| $2468 + 1325 = 3793$

$$\begin{array}{r} & & 4 & 12 & \\ 4 & 3 & 5 & 2 & \\ - & 1 & 2 & 1 & 8 \\ \hline 3 & 1 & 3 & 4 & \end{array}$$

Subtract in columns

Subtract the ones first. Not enough ones? Regroup 1 ten into 10 ones.

| $4352 - 1218 = 3134$



Add in your head

Split 38 into 30 and 8. Add the tens, then the ones.

| $47 + 38 = 47 + 30 + 8 = 85$



NUMBER & ALGEBRA

Money

Term 1 · revision

Dollars	Cents
4	05

Dollars and cents

100 cents make \$1. In \$4.05, the dot comes between the dollars and the cents.

	Dollars	Cents
	3	60
+	2	75
	6	35

Add money

Add the cents first. 100 cents make \$1: add it to the dollars.

$$60 \text{ cents} + 75 \text{ cents} = \$1 \text{ } 35 \text{ cents}$$

$$\$3 + \$2 + \$1 = \$6$$

$$\$3.60 + \$2.75 = \$6.35$$

	Dollars	Cents
	10	00
-	3	45
	6	55

Subtract money

Not enough cents? Change \$1 into 100 cents first.

$$\$10 = \$9 + 100 \text{ cents}$$

$$100 \text{ cents} - 45 \text{ cents} = 55 \text{ cents}$$

$$\$10 - \$3.45 = \$6.55$$

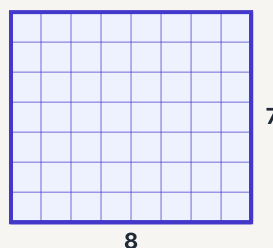
Multiplication and Division

Term 2

	× 6	× 7	× 8	× 9
1	6	7	8	9
2	12	14	16	18
3	18	21	24	27
4	24	28	32	36
5	30	35	40	45
6	36	42	48	54
7	42	49	56	63
8	48	56	64	72
9	54	63	72	81
10	60	70	80	90

Times tables of 6, 7, 8 and 9

Learn them by heart. 7×8 is the same as 8×7 .



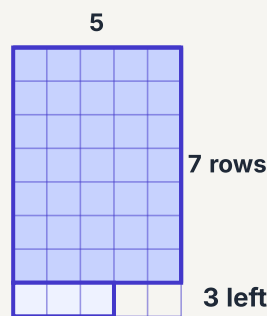
Multiply and divide are a pair

One times fact gives two division facts.

$$7 \times 8 = 56$$

$$56 \div 8 = 7$$

$$56 \div 7 = 8$$



Division with remainder

The number left over is the remainder. It is always smaller than the number you divide by.

$$38 \div 5 = 7 \text{ R } 3$$

$$\text{check} \rightarrow 7 \times 5 + 3 = 38$$

$$\begin{array}{r} 2 \\ 216 \\ \times 4 \\ \hline 864 \end{array}$$

Multiply in columns

Multiply the ones, then the tens, then the hundreds. Regroup when you get 10 or more.

$$216 \times 4 = 864$$

$$\begin{array}{r} 2 5 2 \\ 3 \overline{) 756} \\ \underline{6} \\ 15 \\ \underline{15} \\ 06 \\ \underline{06} \\ 0 \end{array}$$

Long division

Start from the hundreds. Divide, multiply, subtract, then bring down the next digit.

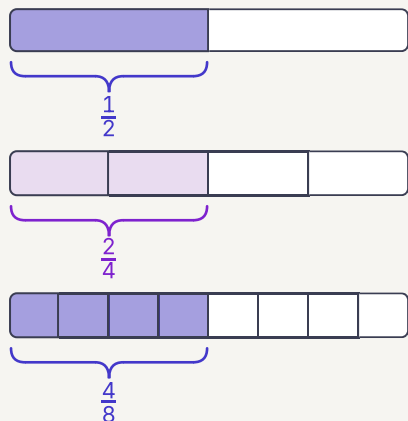
$$756 \div 3 = 252$$



NUMBER & ALGEBRA

Fractions

Term 3

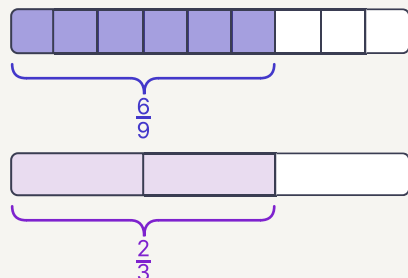


Equivalent fractions

Multiply the numerator and the denominator by the same number. The fraction stays the same size.

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

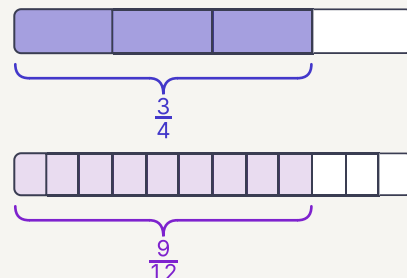
$$\frac{1}{2} = \frac{1 \times 4}{2 \times 4} = \frac{4}{8}$$



Simplest form

Divide the numerator and the denominator by the same number. Stop when no number divides both.

$$\frac{6}{9} = \frac{6 \div 3}{9 \div 3} = \frac{2}{3}$$

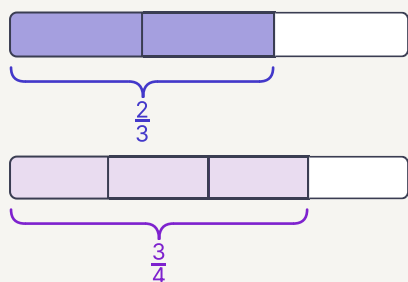


The missing number

What was the denominator multiplied by? Do the same to the numerator.

$$\text{denominator} \rightarrow 4 \times 3 = 12$$

$$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

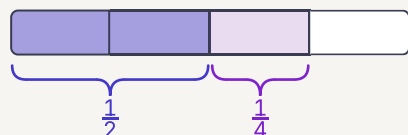


Compare fractions

Make the denominators the same. The bigger numerator is the bigger fraction.

$$\frac{2}{3} = \frac{8}{12}$$

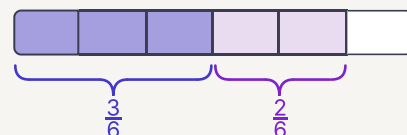
$$\frac{3}{4} = \frac{9}{12}$$



Add related fractions

Make the denominators the same, then add the numerators.

$$\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$



Subtract related fractions

Make the denominators the same, then subtract the numerators. Simplify if you can.

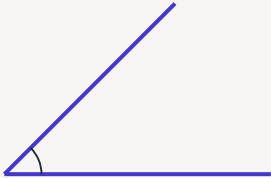
$$\frac{5}{6} - \frac{1}{3} = \frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$

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



MEASUREMENT & GEOMETRY

Angles Term 3



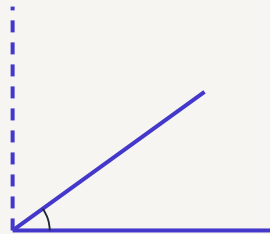
An angle

Two lines that meet make an angle. The bigger the turn, the bigger the angle. Longer lines do not make it bigger.



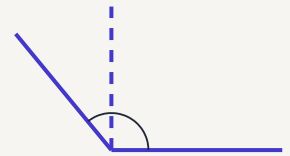
Right angle

A right angle is a square corner, like the corner of a book.



Acute angle

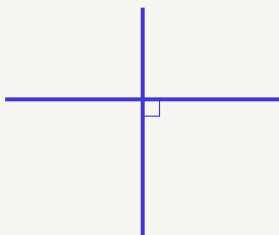
Smaller than a right angle.



Obtuse angle

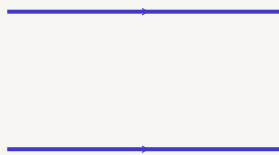
Greater than a right angle.

Perpendicular and Parallel Lines Term 3



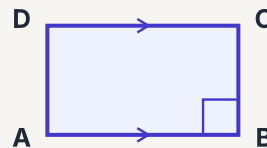
Perpendicular lines

Two lines that meet at a right angle are perpendicular.



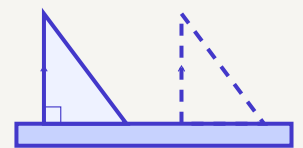
Parallel lines

Parallel lines stay the same distance apart. They never meet.



Lines in a rectangle

AB is parallel to DC. AB is perpendicular to BC.



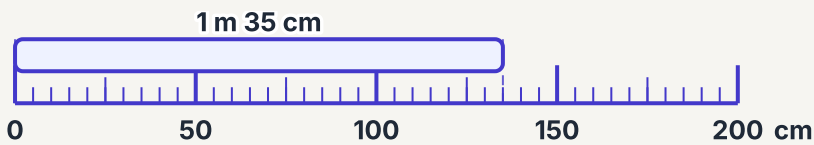
Drawing them

Hold a ruler still. Slide a set square along it for a parallel line. Use its square corner for a perpendicular line.



MEASUREMENT & GEOMETRY

Length, Mass and Volume Term 3

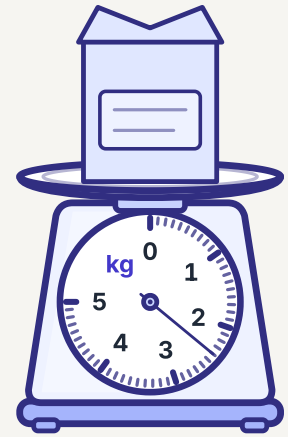


Length

1 m = 100 cm. Read the metres, then the centimetres.

$$1 \text{ m} = 100 \text{ cm}$$

$$100 \text{ cm} + 35 \text{ cm} = 135 \text{ cm}$$

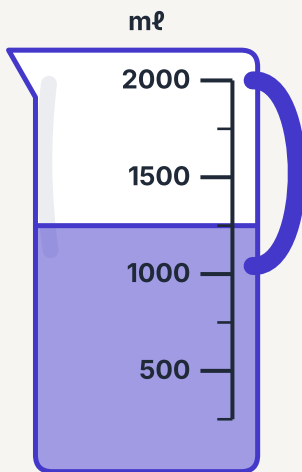


Mass

1 kg = 1000 g. Read the kilograms, then count the small marks: each is 100 g.

$$2 \text{ kg} = 2000 \text{ g}$$

$$2000 \text{ g} + 400 \text{ g} = 2400 \text{ g}$$



Volume of liquid

1 l = 1000 ml. Read the scale where the water is level.

$$1 \text{ l} = 1000 \text{ ml}$$

$$1000 \text{ ml} + 250 \text{ ml} = 1250 \text{ ml}$$

In two units	In one unit
2 km 480 m	2480 m
5 m 8 cm	508 cm
2 kg 75 g	2075 g
1 l 50 ml	1050 ml

Changing units

To one unit: change the bigger unit, then add. To two units: take out the thousands.

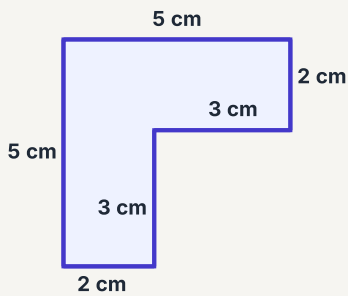
$$5 \text{ m } 8 \text{ cm} = 500 \text{ cm} + 8 \text{ cm} = 508 \text{ cm}$$

$$2075 \text{ g} = 2000 \text{ g} + 75 \text{ g} = 2 \text{ kg } 75 \text{ g}$$



MEASUREMENT & GEOMETRY

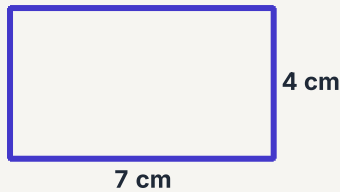
Area and Perimeter Term 4



Perimeter

Perimeter is the distance all the way around. Add all the sides.

$$5 + 2 + 3 + 3 + 2 + 5 = 20 \text{ cm}$$

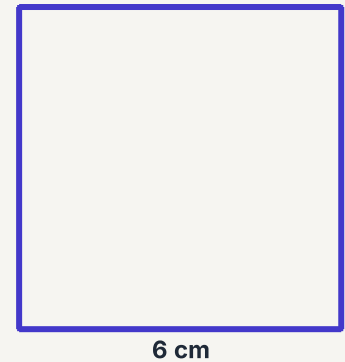


Perimeter of a rectangle

2 lengths + 2 breadths

EXAMPLE

$$7 + 4 + 7 + 4 = 22 \text{ cm}$$

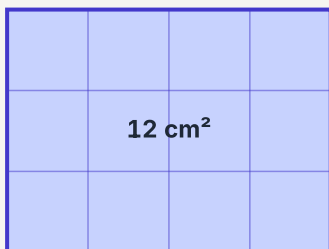


Perimeter of a square

4 × side

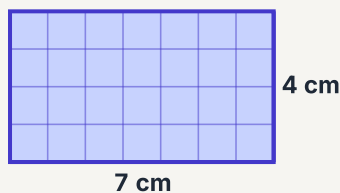
EXAMPLE

$$4 \times 6 = 24 \text{ cm}$$



Area

Area is the space inside. Count the squares: each small square is 1 cm^2 .

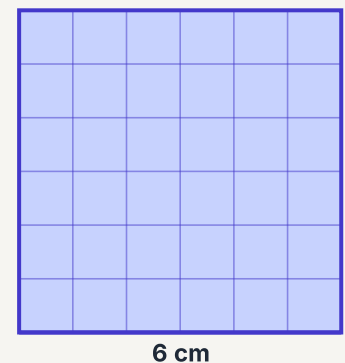


Area of a rectangle

length × breadth

EXAMPLE

$$7 \times 4 = 28 \text{ cm}^2$$



Area of a square

side × side

EXAMPLE

$$6 \times 6 = 36 \text{ cm}^2$$



MEASUREMENT & GEOMETRY

Time Term 4

$$1 \text{ min } 15 \text{ s} = 60 \text{ s} + 15 \text{ s} = 75 \text{ s}$$

Seconds

60 seconds make 1 minute.

24-hour clock

After 12 noon, add 12 to the hour. Midnight is 00 00.

$$3.15 \text{ p.m.} = 15 \text{ 15}$$

12-hour	24-hour
9.05 a.m.	09 05
12 noon	12 00
3.15 p.m.	15 15
midnight	00 00



How long it takes

Count on to the next hour, then the whole hours, then the minutes left.

$$9.45 \text{ a.m. to } 11.15 \text{ a.m.} \\ \rightarrow 15 \text{ min} + 1 \text{ h} + 15 \text{ min} = 1 \text{ h } 30 \text{ min}$$



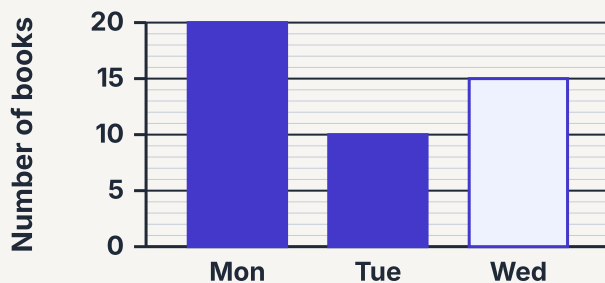
Start time and end time

End time = start time + how long. Start time = end time - how long.

$$2.40 \text{ p.m.} + 50 \text{ min} = 3.30 \text{ p.m.} \\ 3.30 \text{ p.m.} - 50 \text{ min} = 2.40 \text{ p.m.}$$

STATISTICS

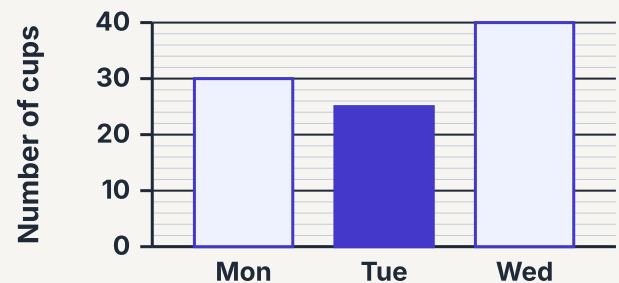
Bar Graphs Term 2



Read a bar graph

Read where each bar ends on the scale. "How many more" means subtract.

$$\text{how many more on Monday than Tuesday} \\ \rightarrow 20 - 10 = 10$$



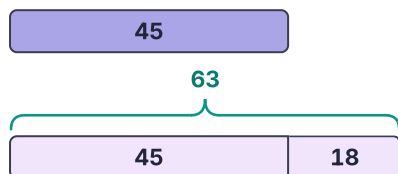
Read the scale first

Find what one step on the scale is worth. Tuesday's bar ends halfway between 20 and 30.

$$\text{half of a step of } 10 \rightarrow 10 \div 2 = 5 \\ \text{Tuesday} \rightarrow 20 + 5 = 25$$



PROBLEM SUMS: HOW TO SPOT EACH METHOD



Bar model

"More, fewer, altogether"

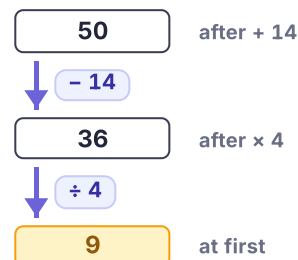
Draw the parts you know as bars. The bar you need shows what to find.

Try	20c coins	50c coins	Total
1	5	5	\$3.50
2	7	3	\$2.90
3	6	4	\$3.20

Guess and check

"Small numbers, two kinds"

Guess, check against every fact, and change the guess until it fits.



Working backwards

"Start from the end"

Start from the end and undo each step in reverse.

Tens digit	Numbers made
3	36, 39
6	63, 69
9	93, 96

Systematic list

"How many different ways"

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

	Pens	Pencils	Cost
1 set	1	2	\$4
7 sets	7	14	\$28

Grouping method

"Sold in fixed sets"

Find what one set is worth. Then the total ÷ one set = how many sets.

On the paper

- Answer in the unit the question gives.
- Show your working, step by step.

Units

1 km = 1000 m 1 m = 100 cm

1 kg = 1000 g 1 ℓ = 1000 ml

1 h = 60 min 1 min = 60 s

