

Grade 1 Math Practice

29 sheets • every strand • one idea per page

THIS BOOK BELONGS TO

Find your colour



Number

counting, adding, subtracting, sharing

Sheets 1–13



Algebra

patterns, equal amounts, coding

Sheets 14–19



Data

sorting, graphs, how likely

Sheets 20–23



Spatial Sense

shapes, halves, position, measuring

Sheets 24–28



Money

Canadian coins and bills

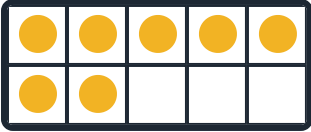
Sheet 29

For the grown-up The six things that matter most this year: instant recall of addition facts to 10, flexible number sense to 50, reading and extending patterns, sorting and graphing, naming shapes and their attributes, and knowing the coins. Everything else builds on those. Short and often beats long and rare — ten focused minutes is plenty.



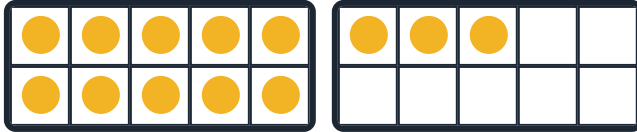
How many dots?

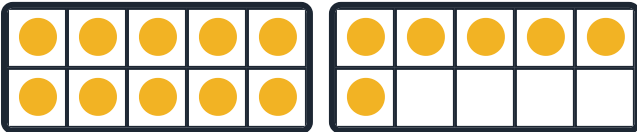
Count the dots in the ten frames. Write the number in the box.

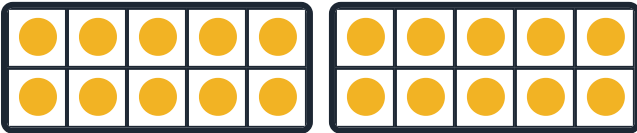
a  

b  

c  

d  

e  

f  

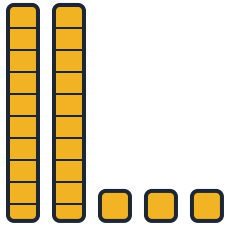
Talk about it

In d, did you count all thirteen dots one by one — or did you just *know* the full frame was ten and count on from there? Counting on is faster. Try it on e and f.

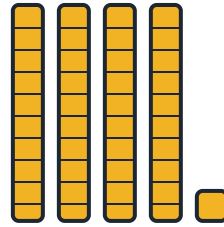


Tens and ones

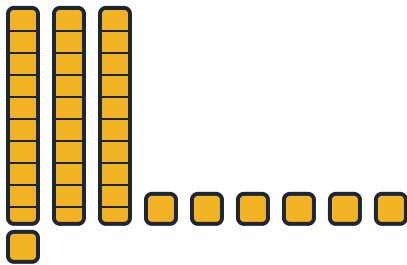
Each tall rod is 10. Each little cube is 1. Write how many.



tens ones =



tens ones =



tens ones =



tens ones =

Now the other way round – draw it yourself

Draw 36



Draw 50





Break it apart

Every number can be split into smaller parts. Fill in the missing part.

a $34 = 30 + \square$

b $28 = 20 + \square$

c $45 = \square + 5$

d $17 = \square + 7$

e $40 + 9 = \square$

f $10 + 10 + 3 = \square$

Two ways to make 25

$$\square + \square = 25$$

$$\square + \square = 25$$

Three ways to make 40

$$\square + \square$$

$$\square + \square$$

$$\square + \square$$

For the grown-up The last two boxes are open — there is no single right answer, and that's the point. Push for an unusual split: 25 as $12 + 13$ is a stronger answer than $20 + 5$.

B1.2



Bigger, smaller, same

Write > (greater than), < (less than), or = in the box.

a 27 32

b 45 45

c 19 16

d 38 41

e 50 15

f 24 42

Put them in order – smallest first

23 · 8 · 41 · 17

 ▶ ▶ ▶

Now biggest first

36 · 50 · 12 · 29

 ▶ ▶ ▶

Tricky one

Why is 24 smaller than 42, when both use the same two digits? Say your answer out loud.



Guess, then count

Look quickly — don't count yet! Write your guess. *Then* count carefully and write the real number.



My guess

Real number



My guess

Real number



My guess

Real number

Counting tip

Circle groups of five or ten first, then count the groups. It's faster and you're far less likely to lose your place.



Skip counting paths

Fill in the missing numbers to finish each path.

Count by 2s

2	4	6		10		14			20
---	---	---	--	----	--	----	--	--	----

Count by 5s

5	10		20		30		40		50
---	----	--	----	--	----	--	----	--	----

Count by 10s

10		30		
----	--	----	--	--

Count backwards by 1s

30	29		27		25		
----	----	--	----	--	----	--	--

For the grown-up Counting backwards is much harder than forwards and gets skipped far too often. If the last row is a struggle, that's normal — practise it in the car, out loud, from different starting numbers.

B1.5



Who finished where?

Ten runners crossed the line. Write the position words under each one.



Word bank: first · second · third · fourth · fifth · sixth · seventh · eighth · ninth · tenth

- a The blue runner came
- b The pink runner came
- c Who came fifth? The one
- d Colour the seventh runner's circle again. What colour is it?
- e Who is just before ninth?



Facts to 10 – go!

These are the ones to know by heart. No counting on fingers if you can help it.

$3 + 4 =$

$5 + 2 =$

$6 + 1 =$

$2 + 2 =$

$8 + 2 =$

$4 + 4 =$

$1 + 7 =$

$5 + 5 =$

$3 + 3 =$

$9 + 1 =$

$6 + 2 =$

$0 + 5 =$

$7 + 3 =$

$4 + 2 =$

$2 + 6 =$

$5 + 4 =$

$3 + 6 =$

$1 + 1 =$

$8 + 1 =$

$4 + 5 =$

$2 + 3 =$

$6 + 3 =$

$7 + 2 =$

$5 + 3 =$

Beat your own time

Do the whole sheet again tomorrow and see if you're faster.

Try 1

Try 2

Try 3

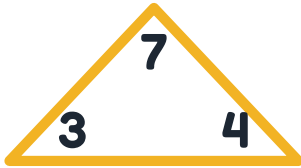
For the grown-up This is the single most important page in the book. Instant recall of these 24 facts is the strongest predictor of Grade 2–3 maths fluency. Aim for the whole grid in under two minutes, from memory, by June. Repeat this sheet weekly.

B2.2



Fact families

Three numbers that live together make four facts. Write them all.



$$____ + ____ = ____$$

$$____ + ____ = ____$$

$$____ - ____ = ____$$

$$____ - ____ = ____$$



$$____ + ____ = ____$$

$$____ + ____ = ____$$

$$____ - ____ = ____$$

$$____ - ____ = ____$$



$$____ + ____ = ____$$

$$____ + ____ = ____$$

$$____ - ____ = ____$$

$$____ - ____ = ____$$



$$____ + ____ = ____$$

$$____ - ____ = ____$$

This one is different — it only makes two facts. Why?

For the grown-up The red family is the interesting one: because both parts are 5, swapping them changes nothing, so there are only two facts instead of four. If they spot that on their own, that's Level 4 reasoning.

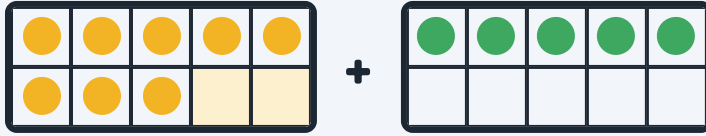
B2.1



Make ten first

Ten is easy to add to. Move some over to make a full ten, then add what's left.

Watch how it works: $8 + 5$



Move 2 green dots into the empty spaces → that makes 10. There are 3 green dots left over. So $8 + 5 = 13$.

$$9 + 4 =$$

$9 + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

$$7 + 6 =$$

$7 + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

$$9 + 7 =$$

$9 + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

$$8 + 7 =$$

$8 + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

$$6 + 8 =$$

$\underline{\quad} + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

$$9 + 9 =$$

$\underline{\quad} + \underline{\quad} = 10$, then $+ \underline{\quad} = \underline{\quad}$

Doubles you already know

$6 + 6 = 12$ · $7 + 7 = 14$ · $8 + 8 = 16$ · $9 + 9 = 18$. Now use them: if $7 + 7 = 14$, what is $7 + 8$? $\underline{\quad}$



Story problems

Draw a picture, write the number sentence, then write the answer.

1. There are 23 books on the shelf. Ms. Patel puts 12 more books on. How many books are on the shelf now?

Answer books

2. Amari has 40 stickers. She gives 15 to her cousin. How many stickers does she have left?

Answer stickers

3. A basket has 18 red apples and 17 green apples. How many apples altogether?

Answer apples

4. Jonah has 29 marbles. Priya has 34 marbles. How many more does Priya have?

Answer marbles

For the grown-up Problem 4 is the hard type — nothing is taken away, but you subtract. "How many more" comparison problems trip up a lot of Grade 1s. Two towers of cubes side by side make it obvious.

B2.4



Sharing fairly

Draw lines to share the treats. Fair means everyone gets the same. Some might be left over!

6 cookies shared by 2 children



Each child gets

Left over

9 cookies shared by 2 children



Each child gets

Left over

8 muffins shared by 4 children



Each child gets

Left over

10 muffins shared by 4 children



Each child gets

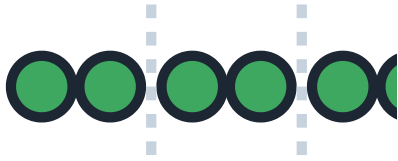
Left over

What could the children do with the leftovers so it stays fair?

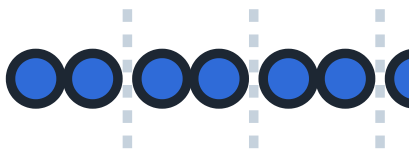


Equal groups and halves

Count the groups, then count the total.



___ groups of ___
= ___ in all



___ groups of ___
= ___ in all



___ groups of ___
= ___ in all

Now halves



6 halves = ___ whole apples



4 halves = ___ whole pears

If you have 5 halves, how many whole fruits can you make, and what is left over? _____



Keep the pattern going

Draw the next three shapes. Then circle the part that repeats.



The repeating part is called the core. How many shapes are in this core? _____



How many shapes are in this core? _____



How many shapes are in this core? _____

Make up your own



Draw a repeating pattern with a core of 4 shapes. Repeat it twice.



Same pattern, different clothes

This is one pattern shown four ways. Fill in the empty rows so they all match.

Shapes



Letters



Sounds and movements



Numbers — use 1 for A and 2 for B



Now perform the sound row out loud for someone. Can they draw the shapes just from hearing it?



What's missing?

Something fell out of the middle of each pattern. Draw it in, then write the rule.



The rule is:



The rule is:

Number patterns too



Rule: add _____



Rule: _____ 2 each time

Think ahead

In the very first pattern, what shape would be 10th? You do not have to draw them all — use the core to work it out.



The fifty chart

Fill in the missing numbers. Then colour every number you say when you count by 5s.

1	2		4	5	6		8	9	10
11		13	14		16	17	18		20
	22	23		25	26		28	29	
31	32		34	35		37	38	39	40
	42	43	44		46	47		49	

What do you notice about the numbers you coloured? They all end in _____ or _____.

Look down any column. What changes each time you move down one row?

Look across any row. What changes each time you move right one square?

Start at 7 and move down two rows. Where do you land? _____ How much did you add? _____

For the grown-up The chart is a pattern machine, not just a filling-in exercise. Down a column adds 10, across a row adds 1 — noticing that is worth more than filling every blank correctly. Keep this page and reuse it: colour 2s in a different colour, then 10s.

C1.4 · B1.5

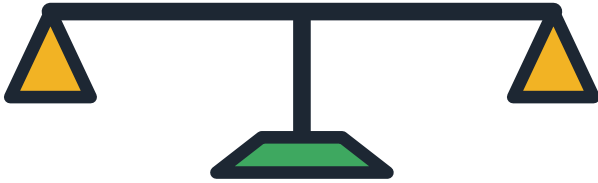


Does it balance?

The scale tips to the bigger side. Work out both sides, then circle balanced or not balanced.

$5 + 3$

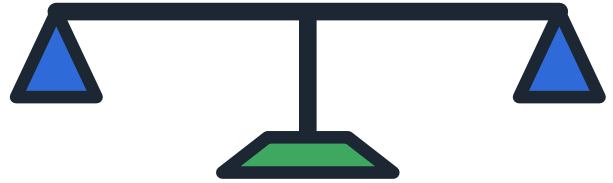
$4 + 4$



___ and ___ · balanced / not balanced

$7 + 2$

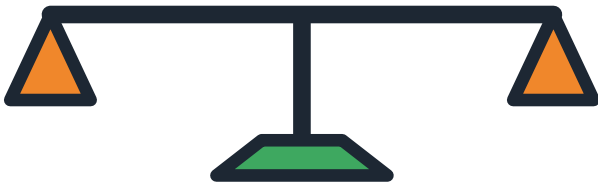
$10 - 1$



___ and ___ · balanced / not balanced

$6 + 3$

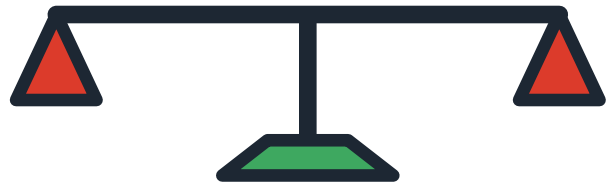
$5 + 5$



___ and ___ · balanced / not balanced

$10 - 4$

$2 + 4$



___ and ___ · balanced / not balanced

Now make them balance

$4 + \square = 3 + 5$

$9 - \square = 2 + 3$

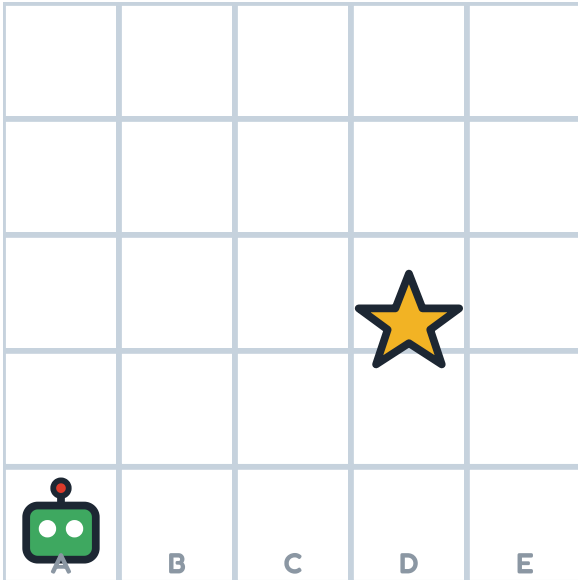
$6 + 2 = \square + 3$

$10 - 2 = \square + 4$



Program the robot

The robot only moves one square at a time, and only the way the arrow points.



1 • Write the code

Get the robot to the star. Use ↑ ↓ ← → — one arrow per box.

2 • Read the code

The robot starts at A on the bottom row again and runs this:



Which square does it land on? _____

3 • Fix the code

This code was *supposed* to reach the star but it stops one square short:



What one step would you add? _____

Play it for real: tape a grid on the floor, be the robot, and have someone else read your code out loud. If they end up in the wrong square, that's a **bug** — find it and fix it.



Sort it out

Here are twelve buttons. Sort them one way at a time.



A



B



C



D



E



F



G



H



I



J



K



L

Round

Not round

Write the letters in the right hoop.

Red

Not red

Guess my rule

Someone sorted the buttons into two groups: A, B, E, F, I, J in one hoop and C, D, G, H, K, L in the other. What was their sorting rule? _____



Tally it, then graph it

Fifteen children picked a favourite fruit. Count them up and make a graph.



Fruit	Tally marks	How many
 Apple		
 Banana		
 Orange		
 Grapes		

Now colour one square for each vote

Don't forget to give your graph a title.

Apple

☐	☐	☐	☐	☐	☐	☐
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Banana

☐	☐	☐	☐	☐	☐	☐
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Orange

☐	☐	☐	☐	☐	☐	☐
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Grapes

☐	☐	☐	☐	☐	☐	☐
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4 5 6 7

For the grown-up Tally marks must go in bundles of five with the fifth struck across — that's the whole reason tallies exist. Check the total comes to 15; if it doesn't, they've double-counted or skipped one, which is a useful thing to catch themselves.

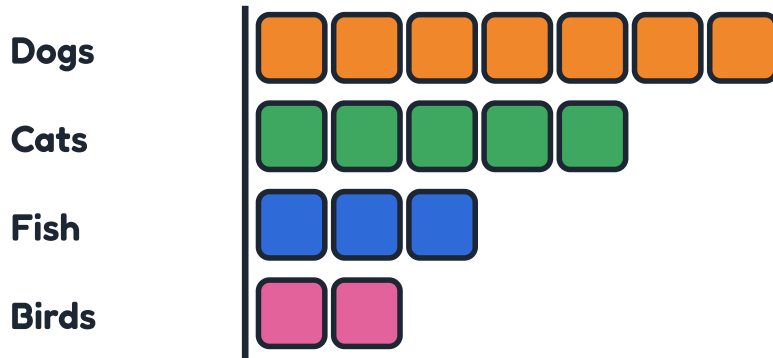
D1.2 · D1.3



What does the graph say?

Room 1 counted their pets. Read the graph, then answer the questions.

Pets in Room 1



each square = 1 pet

- a Most popular pet?
- b Fewest?
- c How many dogs?
- d How many fish?
- e How many more dogs than cats?
- f How many pets altogether?

Put the pets in order – most first

 > > >

Use the data to decide

Room 1 wants one big class poster of a pet. Which pet should they choose, and why does the graph say so?

.....

.....



Could it happen?

Write the letter of each sentence in the right box.

- A The sun will come up tomorrow morning.
- B A cat will fly an aeroplane to school.
- C It will rain on Saturday.
- D You will get one day older today.
- E You will have soup for lunch.
- F You will roll a 7 on a normal dice with dots 1 to 6.
- G You will pull out a red cube from a bag holding *only* red cubes.
- H You will pull out a blue cube from a bag holding red *and* blue cubes.
- I A tree will grow taller than a house.

Impossible

it can never happen

Possible

it might happen

Certain

it will definitely happen

Your turn – write one of each

Something impossible: _____

Something possible: _____

Something certain: _____



Flat shapes

Write the name, then count the sides and the corners.



name

sides ____ corners



name

sides ____ corners



name

sides ____ corners



name

sides ____ corners



name

sides ____ corners



name

sides ____ corners



name

sides ____ corners

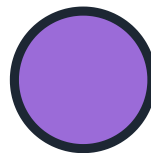
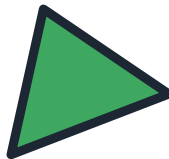


name

sides ____ corners

Circle every triangle

Careful — a triangle is still a triangle when it's tipped over, squashed, or pointing down.



How many triangles did you find? _____

For the grown-up Many children only recognise an equilateral triangle sitting flat on its base. The tipped, stretched and right-angled ones on the bottom row are the test. If they miss those, draw odd triangles together until "three straight sides, closed" is the rule they use — not the picture in their head.

E1.1

Solid shapes

Name each solid. Then draw a line to something real that has the same shape.



name

.....



name

.....



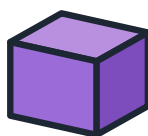
name

.....



name

.....



name

.....



name

.....

Word bank: cube · sphere · cone · cylinder · rectangular prism · pyramid

Which real thing matches?

soup can · beach ball · dice · party hat · cereal box · a pyramid in Egypt

Flat shapes hiding inside

A cube is made of 6 flat _____.

A cylinder has 2 flat _____ at the ends.

A cone has 1 flat _____ at the bottom.

For the grown-up Best done with the actual objects on the table. Have them trace round a tin and a box on paper — seeing the circle and the rectangle appear is the moment 2-D and 3-D connect.

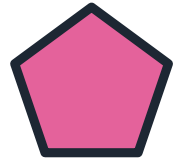
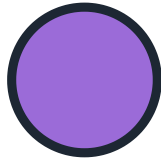
E1.2



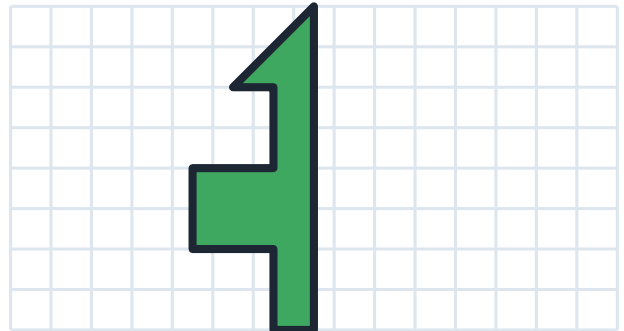
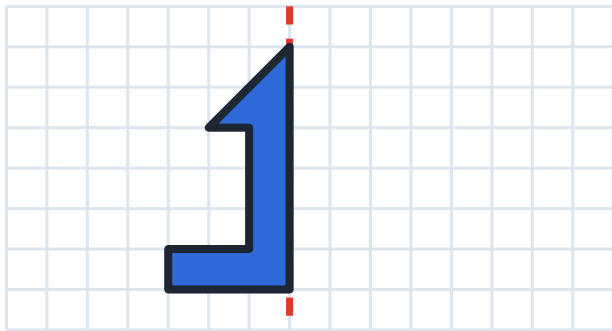
Matching halves

If you could fold it and both sides matched exactly, it has matching halves.

Draw the fold line on each shape



Finish the other half



The red dashed line is the fold. Copy the shape onto the empty side so it matches perfectly.

Yes or no?

Look around the room. Find two things with matching halves and one thing without.

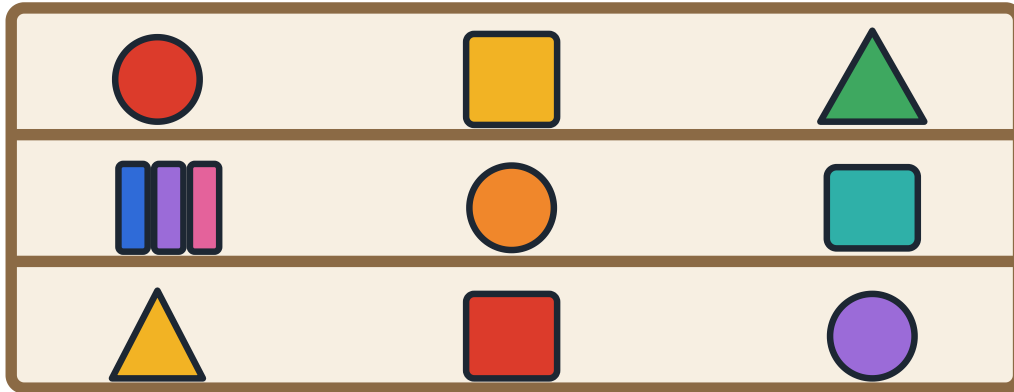
Matching halves: _____ and _____

No matching halves: _____



Where is it?

Look at the shelf. Answer using position words.



- a What colour is the ball on the **top** shelf? _
- b What shape is **below** the green triangle? _
- c What is **between** the books and the teal box?
- d What is **above** the red square?
- e Is the purple ball on the **left** or the **right**?
- f How many things are on the **middle** shelf?

Give the directions

Tell someone how to walk from the classroom door to your desk. Use words like *forward*, *turn left*, *turn right*, *past*, *beside*, *stop*.

.....

.....

.....

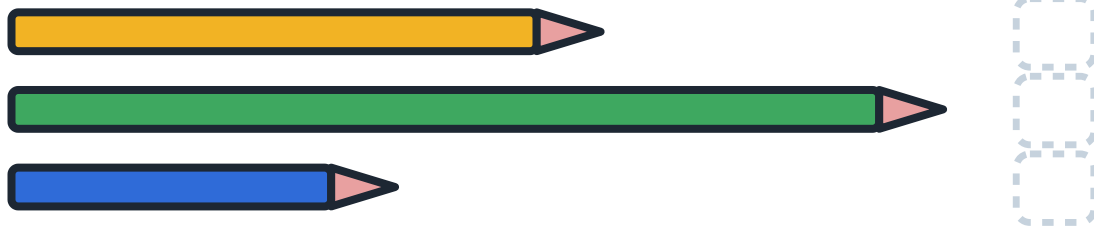
For the grown-up Then actually follow their directions, literally and without helping. If they say "go that way," walk into a wall. Children discover very fast why precise language matters — and it's funny, which helps.

E1.4 · E1.5

Compare and measure

Four things you can measure: how long, how heavy, how much it holds, how much it covers.

Length – number them 1 (shortest) to 3 (longest)



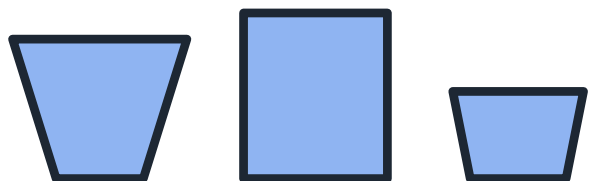
Measure with cubes



The pencil is _____ cubes long.

Now measure something on your table with cubes, blocks or paperclips: _____ is _____ long.

Which holds the most?



Circle it. This is called **capacity**.

Which is heavier?



Circle it. This is called **mass**.

Which covers more?

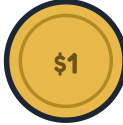


Circle it. How much a flat shape covers is called **area**.



Canadian money

Write the name and the value of each coin. They are drawn at their real sizes.

				
---	---	---	---	---

Word bank: nickel · dime · quarter · loonie · toonie

Circle the one worth more

Careful — the bigger coin is not always worth more!

dime or nickel

quarter or
dime

loonie or
quarter

toonie or
loonie

How much altogether?



= _____ ¢



= _____ ¢



= _____ ¢

Put the bills in order — smallest value first

\$20

\$50

\$5

\$10

	▶		▶		▶	
--	---	--	---	--	---	--

For the grown-up The dime is the trap and it's worth dwelling on: it's the smallest coin but worth twice the bigger nickel. Real coins in a real hand beat this page every time — let them pay for something and count the change into your palm.

F1.1

Answers

Where a question is open-ended, a sample answer is given — anything reasonable counts.

1 • How many dots? a 7 · b 4 · c 10 · d 13 · e 16 · f 20

2 • Tens and ones 2 tens 3 ones = **23** · 4 tens 1 one = **41** · 3 tens 7 ones = **37** · 1 ten 9 ones = **19**. Draw 36 = 3 rods + 6 cubes. Draw 50 = 5 rods, no cubes.

3 • Break it apart a 4 · b 8 · c 40 · d 10 · e 49 · f 23. Make 25: 20+5, 15+10, 13+12, 24+1 ... Make 40: 20+20, 30+10, 35+5, 25+15 ...

4 • Bigger, smaller, same a < · b = · c > · d < · e > · f <. Smallest first: 8, 17, 23, 41. Biggest first: 50, 36, 29, 12. Tricky one: in 24 the 2 means *two tens*; in 42 the 4 means *four tens*. The position of a digit changes what it's worth.

5 • Guess, then count Real numbers: **12, 24, 35**. Guesses vary — close is good.

6 • Skip counting paths

2s: 8, 12, 16, 18

5s: 15, 25, 35, 45

10s: 20, 40, 50

Backwards: 28, 26, 24, 23

7 • Who finished where? a third · b eighth · c the red one · d teal · e eighth (the pink runner).

8 • Facts to 10

7, 7, 7, 4

10, 8, 8, 10

6, 10, 8, 5

10, 6, 8, 9

9, 2, 9, 9

5, 9, 9, 8

9 • Fact families

3, 4, 7 → 3+4=7 · 4+3=7 · 7–3=4 · 7–4=3

2, 6, 8 → 2+6=8 · 6+2=8 · 8–2=6 · 8–6=2

1, 8, 9 → 1+8=9 · 8+1=9 · 9–1=8 · 9–8=1

5, 5, 10 → 5+5=10 · 10–5=5 only. Both parts are the same, so swapping them changes nothing.

10 • Make ten first

9+4 → 9+1=10, +3 = **13**

7+6 → 7+3=10, +3 = **13**

9+7 → 9+1=10, +6 = **16**

8+7 → 8+2=10, +5 = **15**

6+8 → 8+2=10, +4 = **14**

9+9 → 9+1=10, +8 = **18**

Doubles: 7+8 = **15** (7+7=14, then one more).

11 • Story problems

1. 23 + 12 = **35** books

2. 40 – 15 = **25** stickers

3. 18 + 17 = **35** apples

4. 34 – 29 = **5** marbles

12 • Sharing fairly

6 ÷ 2 → 3 each, 0 left

9 ÷ 2 → 4 each, 1 left

8 ÷ 4 → 2 each, 0 left

10 ÷ 4 → 2 each, 2 left

Leftovers: cut the two spare muffins in half — everyone gets two and a half.

13 • Equal groups and halves 3 groups of 2 = 6 · 4 groups of 2 = 8 · 2 groups of 5 = 10. 6 halves = **3** apples · 4 halves = **2** pears · 5 halves = **2** wholes with **1 half** left over.

14 • Keep the pattern going

1. triangle, triangle, hexagon — core of **3**. Next: triangle, triangle, hexagon

2. rhombus, square — core of **2**. Next: rhombus, square, rhombus

3. triangle, hexagon, square — core of **3**. Next: triangle, hexagon, square

15 • Same pattern, different clothes Every row is **A A B**

repeated three times. Letters A A B / A A B / A A B · Sounds clap clap stomp ×3 · Numbers 1 1 2 / 1 1 2 / 1 1 2.

Answers, continued

18 • Does it balance?

$5+3 = 8$ and $4+4 = 8 \rightarrow$ **balanced**

$7+2 = 9$ and $10-1 = 9 \rightarrow$ **balanced**

$6+3 = 9$ and $5+5 = 10 \rightarrow$ **not balanced**

$10-4 = 6$ and $2+4 = 6 \rightarrow$ **balanced**

Make them balance: $4+4 = 3+5 \cdot 9-4 = 2+3 \cdot 6+2 = 5+3 \cdot 10-2 = 4+4$

19 • Program the robot

1. $\rightarrow \rightarrow \rightarrow \uparrow \uparrow$ (any order works, e.g. $\uparrow \uparrow \rightarrow \rightarrow \rightarrow$)

2. It lands on **C3** — column C, third row up.

3. Add one more $\uparrow$. The code stops at D2 and the star is at D3.

20 • Sort it out

Round: A, C, E, G, H, J, L • Not round: B, D, F, I, K

Red: A, C, F, K, L • Not red: B, D, E, G, H, I, J

Guess my rule: **size** — A, B, E, F, I, J are the big buttons; C, D, G, H, K, L are the small ones.

21 • Tally it, then graph it

Apple **5** • Banana **3** • Orange **4** • Grapes **3** • Total **15**. Tallies should be bundled in fives with the fifth struck across. Title: anything like "Our Favourite Fruit".

22 • What does the graph say?

a dogs • b birds • c 7 • d 3 • e 2 more dogs than cats • f 17 pets. Order: dogs, cats, fish, birds. Poster: dogs — the dog row is the longest, so more children have dogs than anything else.

23 • Could it happen?

Impossible: **B, F**

Possible: **C, E, H, I**

Certain: **A, D, G**

F is impossible only because the dice stops at 6 — with a different dice, a 7 would be possible.

24 • Flat shapes

triangle 3 sides, 3 corners • square 4, 4 • circle 0 straight sides, 0 corners • rectangle 4, 4

hexagon 6, 6 • trapezoid 4, 4 • rhombus 4, 4 • pentagon 5, 5

Triangles to circle: **5** of them — all the green ones, including the tipped, stretched and right-angled ones. Not the orange square or the purple circle.

25 • Solid shapes

cube $\rightarrow$ dice • sphere $\rightarrow$ beach ball • cone $\rightarrow$ party hat • cylinder $\rightarrow$ soup can • rectangular prism $\rightarrow$ cereal box • pyramid $\rightarrow$ a pyramid in Egypt

A cube is made of 6 flat **squares**. A cylinder has 2 flat **circles**. A cone has 1 flat **circle**.

26 • Matching halves Every shape on the top row has at least one fold line. Finding **one** is enough for Grade 1, but for reference: triangle 1 • square 4 • circle countless • rhombus 2 • trapezoid 1 • pentagon 5. The two grid shapes should be mirrored exactly across the red dashed line — check by counting squares out from the fold.

27 • Where is it? a red • b the teal box • c the orange ball • d the orange ball • e the right
f **5** things (three books, a ball, a box) — or **3** if the books count as one group. Both are fine if they can explain which they counted.

28 • Compare and measure

Length: blue = 1 (shortest), yellow = 2, green = 3 (longest)

Cubes: the pencil is **8** cubes long

Capacity: the **tall middle jar** holds the most

Mass: the **red box** is heavier — its side of the scale went down

Area: the **pink rectangle** covers more

29 • Canadian money

In order as drawn: **dime 10¢ • nickel 5¢ • quarter 25¢ • loonie \$1 • toonie \$2**

Worth more: dime • quarter • loonie • toonie

Altogether: 3 dimes = **30¢** • 2 quarters = **50¢** • 3 nickels = **15¢**

Bills smallest first: \$5, \$10, \$20, \$50

If a sheet was hard

Sheets 8 and 10 are the ones to repeat — fact fluency is the foundation for everything in Grade 2. Sheet 18 is the one to revisit if they think = means "write the answer here". Sheets 2 and 17 are the ones to revisit if place value feels shaky.