Building solid foundations for scholastic success

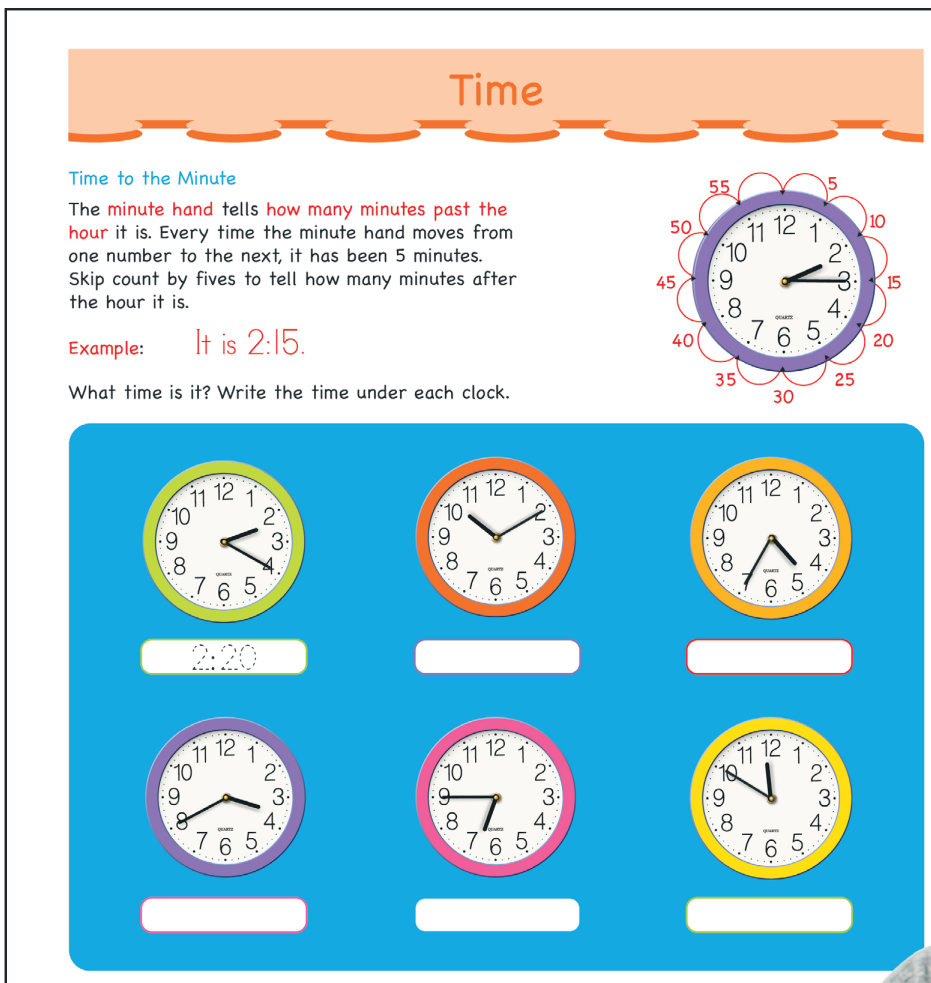
3 Math Readiness

Grade 3

READY TO LEARN™

The Canadian Curriculum Series

Math



- Develops multiplication skills and introduces division
- Develops geometry and graphing skills
- Develops advanced addition and subtraction skills

Tammy K. Hayes, EdD

3 Math Readiness

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The Canadian Curriculum Series

Math

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Grade Three Math Readiness

Grade three is an important year for math. This year is the bridge from foundational skills to more complex math. Kids are using the foundational skills they have acquired and building on them to understand new skills.

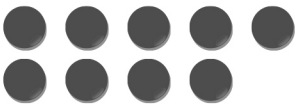
There is immense value in talking positively about math at home. Utilize math skills as often as possible at home to support your child's grasp of number sense and number operations. Math games, like adding the license plate numbers on road trips, and strategic thinking board games, like chess, are great activities for third grade mathematicians.

Foundational Skills

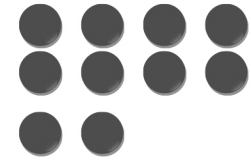
Addition Practice

Solve the addition problems below. Count the beads to help you add. Write the answers below.

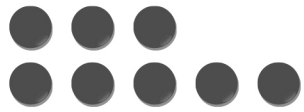
$$\begin{array}{r} 5 \\ +\ 4 \\ \hline 9 \end{array}$$



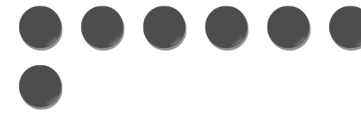
$$\begin{array}{r} 8 \\ +\ 2 \\ \hline 10 \end{array}$$



$$\begin{array}{r} 3 \\ +\ 5 \\ \hline 8 \end{array}$$

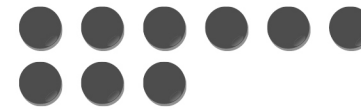


$$\begin{array}{r} 6 \\ +\ 1 \\ \hline 7 \end{array}$$

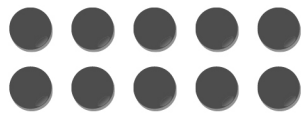


$$\begin{array}{r} 6 \\ +\ 2 \\ \hline 8 \end{array}$$

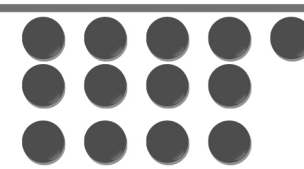
$$\begin{array}{r} 6 \\ +\ 3 \\ \hline 9 \end{array}$$



$$\begin{array}{r} 5 \\ +\ 5 \\ \hline 10 \end{array}$$

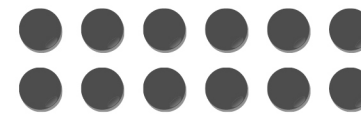


$$\begin{array}{r} 9 \\ +\ 4 \\ \hline 13 \end{array}$$



$$\begin{array}{r} 5 \\ +\ 2 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 6 \\ +\ 6 \\ \hline 12 \end{array}$$



Foundational Skills

Adding Doubles

Knowing the doubles addition facts can help you to add other numbers faster. Practise saying the doubles chant.

0 + 0 = 0	Oh!	6 + 6 = 12	Swell!
1 + 1 = 2	Ooooo!	7 + 7 = 14	Queen!
2 + 2 = 4	More!	8 + 8 = 16	Machine!
3 + 3 = 6	Kicks!	9 + 9 = 18	Jelly Bean!
4 + 4 = 8	Great!	10 + 10 = 20	That's Plenty!
5 + 5 = 10	Again!		

Solve the doubles and doubles plus one addition problems. Write the answers on the lines below.

6 + 6 = 12	7 + 7 = 14	9 + 9 = 18	3 + 4 = 7
6 + 7 = 13	2 + 2 = 4	4 + 4 = 8	3 + 3 = 6
7 + 8 = 15	2 + 3 = 5	4 + 5 = 9	9 + 10 = 19
5 + 6 = 11	8 + 8 = 16	8 + 9 = 17	5 + 5 = 10

Word Problem

Fatima found 10 shiny dimes. Sharon found the same amount. How many dimes do they have in all?

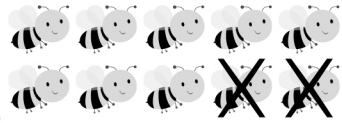
10 + 10 = 20

Foundational Skills

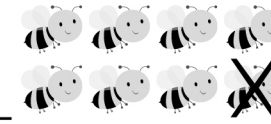
Subtraction Practice

Solve the subtraction problems. Count the bees that are not crossed out to help you subtract. Write the answers below.

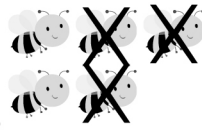
$$\begin{array}{r} 10 \\ -\ 2 \\ \hline 8 \end{array}$$



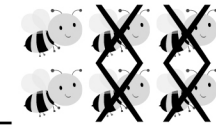
$$\begin{array}{r} 8 \\ -\ 1 \\ \hline 7 \end{array}$$



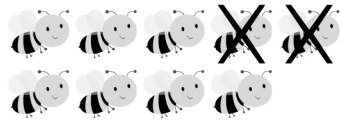
$$\begin{array}{r} 5 \\ -\ 3 \\ \hline 2 \end{array}$$



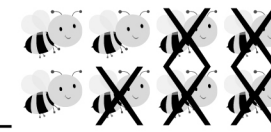
$$\begin{array}{r} 6 \\ -\ 4 \\ \hline 2 \end{array}$$



$$\begin{array}{r} 9 \\ -\ 2 \\ \hline 7 \end{array}$$



$$\begin{array}{r} 8 \\ -\ 5 \\ \hline 3 \end{array}$$



$$\begin{array}{r} 10 \\ -\ 6 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 4 \\ -\ 3 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 9 \\ -\ 4 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 10 \\ -\ 9 \\ \hline 1 \end{array}$$

Foundational Skills

Fact Families

Fact families are a set of equations that share the same three numbers in a different order. They are similar and work together like a family.

Example:

$1 + 4 = 5$

$4 + 1 = 5$

$5 - 1 = 4$

$5 - 4 = 1$

Complete the fact families. Write the answers on the lines below.

$4 + 3 = 7$

$3 + 4 = 7$

$7 - 4 = 3$

$7 - 3 = 4$

$6 + 4 = 10$

$4 + 6 = 10$

$10 - 6 = 4$

$10 - 4 = 6$

$8 + 3 = 11$

$3 + 8 = 11$

$11 - 8 = 3$

$11 - 3 = 8$

$9 + 3 = 12$

$3 + 9 = 12$

$12 - 9 = 3$

$12 - 3 = 9$

Cross out the number sentence that is NOT part of the fact family.

$10 + 2 = 12$

$2 + 10 = 12$

$12 - 10 = 2$

$12 - 2 = 10$

~~$12 + 2 = 14$~~

$6 + 2 = 8$

$2 + 6 = 8$

$8 - 6 = 2$

$8 - 2 = 6$

~~$8 + 6 = 14$~~

Foundational Skills

Adding Two Digit Numbers

Add the two digit numbers. Write the answers below.

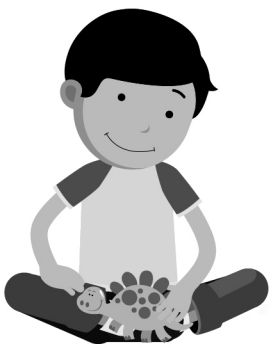
22 + 45 = 67	62 + 23 = 85	34 + 52 = 86	70 + 26 = 96
55 + 34 = 89	46 + 33 = 79	27 + 60 = 87	33 + 66 = 99

32 + 61 = 93	51 + 26 = 77	37 + 22 = 59	73 + 15 = 88
65 + 24 = 89	36 + 33 = 69	16 + 71 = 87	22 + 26 = 48

Solve the word problems and write the answers on the lines below.

Felix has ducks and chicks on his farm. He has 12 ducks and 37 chicks. How many animals does Felix have altogether?

12 + 37 = 49



Ross loves toy dinosaurs. He has 43 favourites and 13 others. How many toy dinosaurs does he have altogether?

43 + 13 = 56

Foundational Skills

Subtracting Two Digit Numbers

Subtract the two digit numbers. Write the answers below.

35 - 11 = 24	48 - 16 = 32	57 - 23 = 34	38 - 10 = 28
58 - 26 = 32	29 - 19 = 10	46 - 33 = 13	59 - 47 = 12

68 - 43 = 25 76 - 52 = 24 87 - 15 = 72 99 - 28 = 71

66 - 11 = 55 47 - 27 = 20 29 - 28 = 1 74 - 23 = 51

Solve the word problems and write the answers on the lines below.

Connor makes pizzas all day long. He made 42 pizzas but his friends ate 11 of them. How many pizzas does Connor have left? 42 - 11 = 31

Gabby collects necklaces. She has 63 necklaces but gives away 12 necklaces. How many necklaces does Gabby have left?

63 - 12 = 51

Foundational Skills

Addition and Subtraction Word Problems

When solving word problems, look for clues. Numbers are clues! **Circle the numbers in the word problems and look for word clues. Hint:** IN ALL and ALTOGETHER **mean** ADD **and** ARE LEFT **and** HAVE LEFT **mean** SUBTRACT.

Circle the clues and solve the word problems. Write the answers on the lines below.

Donna has 25 pairs of running shoes and 34 pairs of dressy shoes. How many pairs of shoes does she have altogether?

25 + 34 = 59

Chris is collecting hockey cards. He has 32 cards with signatures and 21 cards without. How many hockey cards does Chris have in all?

32 + 21 = 53

CJ reads magazines all day long! She has 42 new magazines. She has already read 31 of them. How many magazines does CJ have left to read?

42 - 31 = 11

Ainsley is planting 78 sweet pea plants on her farm. She has planted 36 so far. How many sweet pea plants are left to plant?

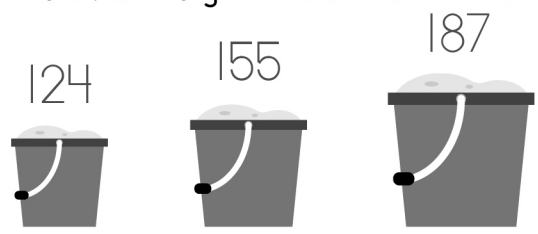
78 - 36 = 42

Number Sense

Least to Greatest

Put the numbers in order from least to greatest. Write the numbers on the lines below.

Example:



243, 156, 325, 711, 354	156, 243, 325, 354, 711
654, 173, 344, 500, 289	173, 289, 344, 500, 654
232, 184, 413, 801, 643	184, 232, 413, 643, 801
955, 538, 77, 419, 100	77, 100, 419, 538, 955
468, 291, 300, 111, 976	111, 291, 300, 468, 976

Number Hunt

Find the numbers that match the descriptions. Write the numbers on the lines below.

~~262~~	427	143
744	617	500

The number between 200 and 300 is 262.

The number that has 0 tens and 0 ones is 500.

The number between 100 and 150 is 143.

The number between 400 and 500 is 427.

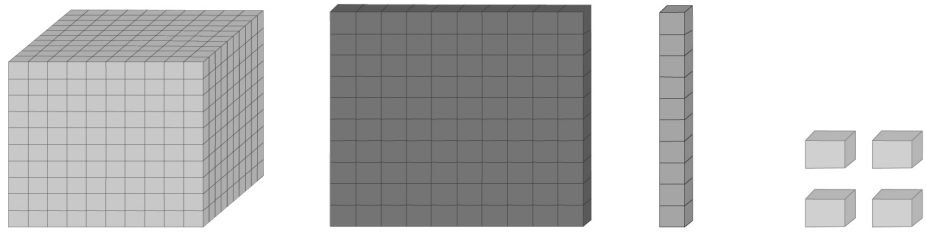
The number that has 7 ones is 617.

The number greater than all the others is 744.

Number Sense

Thousands, Hundreds, Tens, and Ones

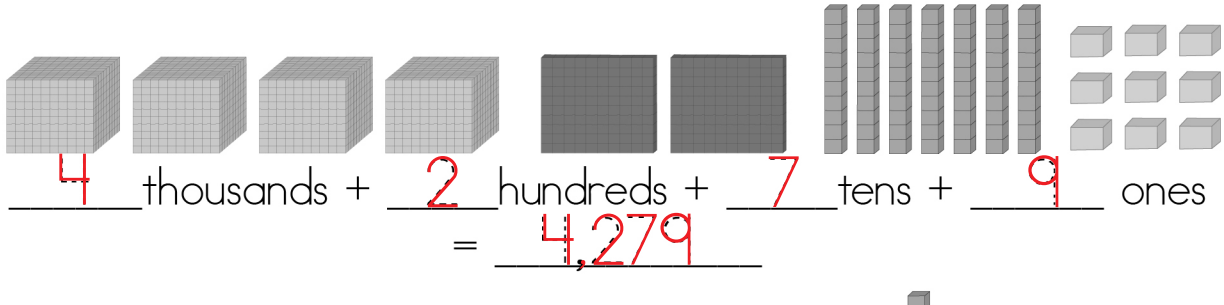
Example:



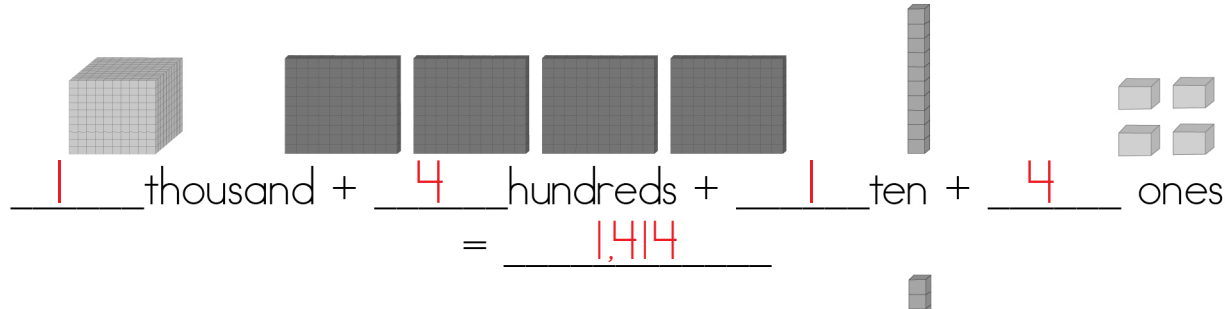
Thousands Hundreds Tens Ones

1 thousand + 1 hundred + 1 ten + 4 ones
= 1,114

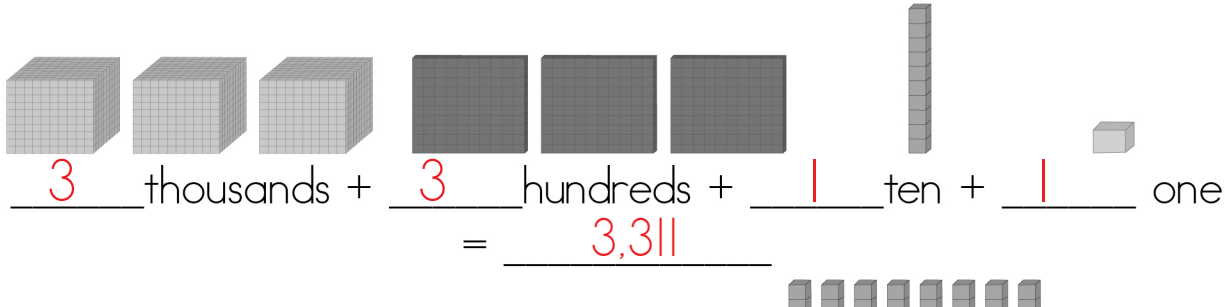
Look at the models below and write the thousands, hundreds, tens, and ones on the lines below.



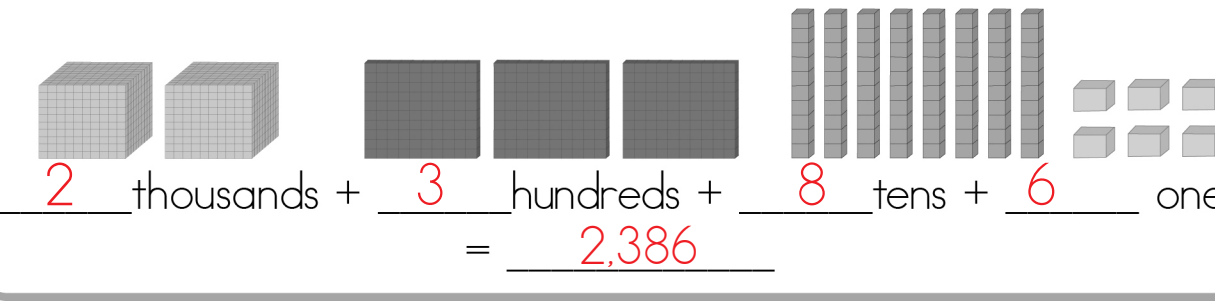
4 thousands + 2 hundreds + 7 tens + 9 ones
= 4,279



1 thousand + 4 hundreds + 1 ten + 4 ones
= 1,414



3 thousands + 3 hundreds + 1 ten + 1 one
= 3,311



2 thousands + 3 hundreds + 8 tens + 6 ones
= 2,386

Number Sense

Expanded Notation

You can write numbers out in expanded form two ways. They can be written out in numbers or in words.

Example: 4,393 = 4000 + 300 + 90 + 3

4,393 = four thousand + three hundred + ninety + three

Write the numbers in expanded form using numbers on the lines below.

3,596 = 3000 + 500 + 90 + 6

2,185 = 2000 + 100 + 80 + 5

4,526 = 4000 + 500 + 20 + 6

1,732 = 1000 + 700 + 30 + 2

4,444 = 4000 + 400 + 40 + 4

Write the numbers in expanded form using words on the lines below.

5,276 = five (thousand) + two (hundred) + seventy + six

3,121 = three (thousand) + one (hundred) + twenty + one

2,349 = two (thousand) + three (hundred) + forty + nine

1,587 = one (thousand) + five (hundred) + eighty + seven

1,995 = one (thousand) + nine (hundred) + ninety + five

Number Sense

Adding Three Digit Numbers

Practise adding three digit numbers. Write the answers in the boxes below.

	Hundreds	Tens	Ones
	1	2	6
+		4	3
	1	6	9

	Hundreds	Tens	Ones
	2	4	5
+	1	3	1
	3	7	6

	Hundreds	Tens	Ones
	3	2	1
+	4	3	7
	7	5	8

	Hundreds	Tens	Ones
	4	6	3
+	3	1	6
	7	7	9

	Hundreds	Tens	Ones
	7	0	3
+	1	1	3
	8	1	6

	Hundreds	Tens	Ones
	4	3	6
+	2	6	2
	6	9	8

	Hundreds	Tens	Ones
	5	3	6
+	4	1	1
	9	4	7

	Hundreds	Tens	Ones
	1	3	5
+		2	1
	1	5	6

	Hundreds	Tens	Ones
	2	7	9
+	6	2	0
	8	9	9

Answer the questions and write the answers on the lines below.

What number is in the tens spot of the number 683? 8

What number is in the ones spot of the number 752? 2

What number is in the hundreds spot of the number 289? 2

How many tens are in the number 191? 9

Number Sense

Adding Three Digit Numbers by Regrouping

Adding hundreds, tens, and ones sometimes means regrouping. If the numbers in a column add up to more than 9, we need to regroup.

Solve the problems by regrouping. Write the answers on the lines below.

	Hundreds	Tens	Ones
		1	
	1	2	6
+	1	4	7
	2	7	3

	Hundreds	Tens	Ones
		1	
	2	4	5
+	5	3	7
	7	8	2

	Hundreds	Tens	Ones
		1	
	3	2	4
+	4	3	7
	7	6	1

	Hundreds	Tens	Ones
		1	
	4	6	5
+	3	1	6
	7	8	1

	Hundreds	Tens	Ones
		1	
	7	0	8
+	2	1	3
	9	2	1

	Hundreds	Tens	Ones
	1	1	
	4	3	6
+	3	6	5
	8	0	1

	Hundreds	Tens	Ones
		1	
	5	3	6
+	2	1	6
	7	5	2

	Hundreds	Tens	Ones
	1		
	2	7	9
+	6	4	0
	9	1	9

	Hundreds	Tens	Ones
		1	
	2	5	6
+	4	1	6
	6	7	2

Solve the word problem and write the problem and the answer in the box below.

Janice is having a HUGE party! She is buying party hats for everyone. She buys 178 silver party hats and 352 gold party hats. How many party hats does Janice have altogether?

	Hundreds	Tens	Ones
	1	1	
	1	7	8
+	3	5	2
	5	3	0

Number Sense

Subtracting Three Digit Numbers

Practise subtracting three digit numbers. Write the answers in the boxes below.

	Hundreds	Tens	Ones
	2	4	9
−	1	1	8
	1	3	1

	Hundreds	Tens	Ones
	4	2	6
−	3	1	4
	1	1	2

	Hundreds	Tens	Ones
	5	5	3
−	4	3	2
	1	2	1

	Hundreds	Tens	Ones
	7	1	4
−	5	1	3
	2	0	1

	Hundreds	Tens	Ones
	2	9	9
−	1	2	7
	1	7	2

	Hundreds	Tens	Ones
	6	3	7
−	5	2	5
	1	1	2

	8	2	6
−	3	0	5
	5	2	1

	4	4	4
−	3	3	3
	1	1	1

	7	9	0
−	1	3	0
	6	6	0

	1	5	9
−	1	2	7
		3	2

	5	8	7
−	3	6	7
	2	2	0

	3	6	8
−	2	3	5
	1	3	3

Answer the questions and write your answers on the lines below.

What number is in the tens spot of the number 274? 7

What number is in the ones spot of the number 680? 0

What number is in the hundreds spot of the number 175? 1

How many tens are in the number 369? 6

Number Sense

Subtracting Three Digit Numbers by Regrouping

Subtracting hundreds, tens, and ones sometimes means regrouping. If the top number in a column is smaller than the bottom number, we need to regroup.

Solve the problems by regrouping. Write the answers in the boxes below.

	Hundreds	Tens	Ones
		3	16
	2	~~4~~	~~6~~
−	1	1	8
	1	2	8

	Hundreds	Tens	Ones
		1	12
	4	~~2~~	~~2~~
−	3	1	4
	1	0	8

	Hundreds	Tens	Ones
		4	13
	5	~~5~~	~~3~~
−	4	3	5
	1	1	8

	Hundreds	~~Tens~~ 10	Ones
	6	~~0~~	14
	~~7~~	~~1~~	~~4~~
−	5	1	7
	1	9	7

	Hundreds	Tens	Ones
		8	15
	2	~~9~~	~~5~~
−	1	2	7
	1	6	8

	Hundreds	Tens	Ones
		2	11
	6	~~3~~	~~1~~
−	5	2	5
	1	0	6

	Hundreds	Tens	Ones
		0	13
	8	~~1~~	~~3~~
−	3	0	5
	5	0	8

	Hundreds	Tens	Ones
	3	12	
	~~4~~	~~2~~	4
−	3	3	3
		9	1

	Hundreds	~~Tens~~ 10	Ones
	5	~~0~~	13
	~~6~~	~~1~~	~~3~~
−	2	1	6
	3	9	7

Solve the word problem and write the problem and the answer in the box below.

Anna needs to blow up 594 balloons for her HUGE party! She is finished blowing up 276 balloons. How many balloons are left for Anna to blow up?

	Hundreds	Tens	Ones
		8	14
	5	~~9~~	~~4~~
−	2	7	6
	3	1	8

Number Sense

Adding to Check Subtraction

Related facts help us to check our answers.

Example: If 435 - 123 = 312 then 312 + 123 = 435

Solve the subtraction problems and then check your answers using addition. Write the answers on the lines below.

555 - 434 = 121
121 + 434 = 555

580 - 240 = 340
340 + 240 = 580

359 - 327 = 32
32 + 327 = 359

487 - 316 = 171
171 + 316 = 487

398 - 265 = 133
133 + 265 = 398

768 - 542 = 226
226 + 542 = 768

678 - 323 = 355
355 + 323 = 678

589 - 254 = 335
335 + 254 = 589

Solve the word problem and write the problem and the answer on the lines below.

Anthony and Rebecca collected 423 shells while walking on the beach. They gave Ben and Nicole 123 of them to start a collection of their own. How many sea shells do they have left?

423 - 123 = 300
300 + 123 = 423

Number Sense

Addition and Subtraction Word Problems

When solving word problems, look for clues. Numbers are clues! Circle the numbers in the word problems and look for word clues. Hint: IN ALL and ALTOGETHER mean ADD and ARE LEFT and HAVE LEFT mean SUBTRACT.

Circle the clues and solve the word problems. Write the answers on the lines below.

Will has 224 kayaks. He has rented 126 of them to a group of vacationers. How many kayaks are left?

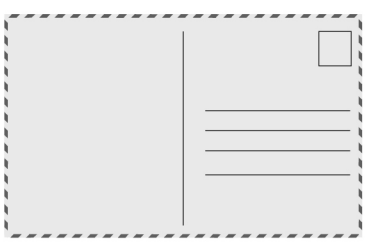
224 - 126 = 98

Josh is picking apples from the orchard. He has picked 381 red ones and 160 green ones. How many apples does he have altogether?

381 + 160 = 541

Jen and Rob took a lot of photos on vacation. Jen took 371 photos. Rob took 102 fewer than Jen. How many photos did Rob take?

371 - 102 = 269



Ali sent postcards from Italy. He sent 216 postcards to friends and 116 to family members. How many postcards did he send in all?

216 + 116 = 332

Multiplication

Multiplication Using a Model

Use the groups to help solve the multiplication problems. Write the answers on the lines below.

How many flowers are in each pot? How many pots are there?

2 flowers in each pot x 2 pots

2 x 2 = 4

How much is each coin worth? How many coins are there?

2 dollars x 2 coins

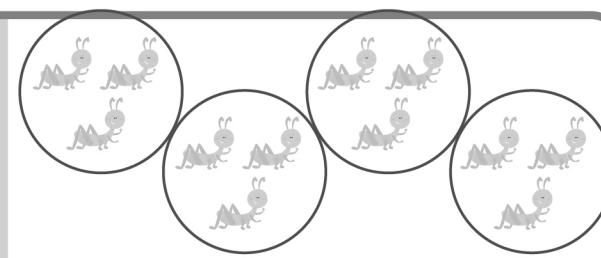
2 x 2 = 4

Circle the groups and multiply. Write the answers on the lines below.

4 groups of grasshoppers

x 3 in each group.

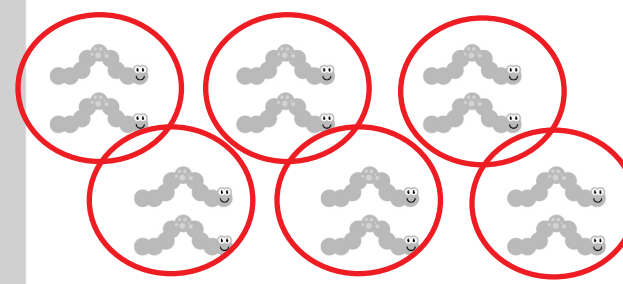
4 x 3 = 12



6 groups of inch worms

x 2 in each group.

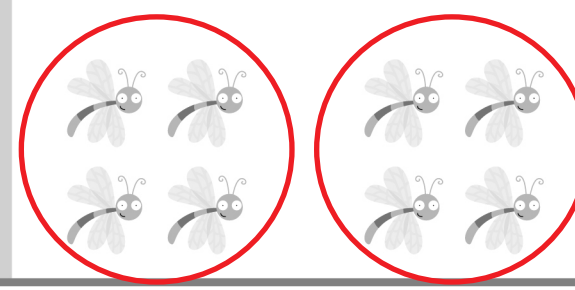
6 x 2 = 12



2 groups of dragonflies

x 4 in each group.

2 x 4 = 8

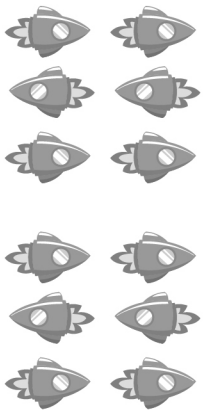


Multiplication

Vertical Multiplication with a Model

Sometimes multiplication sentences are written vertically.

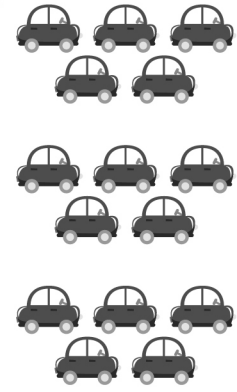
Use the groups to help solve the multiplication problems. Write the answers on the lines below.



2 groups

x 6 rockets

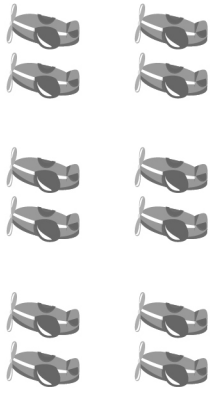
= 12 rockets



3 groups

x 5 cars

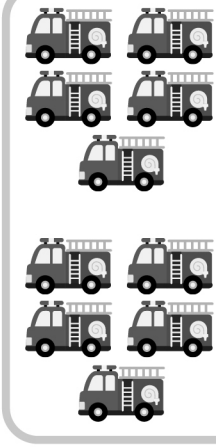
= 15 cars



6 groups

x 2 airplanes

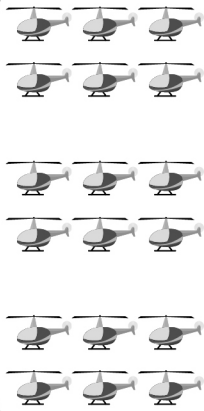
= 12 airplanes



2 groups

x 5 fire trucks

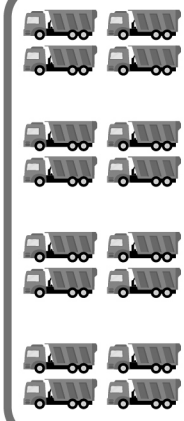
= 10 fire trucks



3 groups

x 6 helicopters

= 18 helicopters



4 groups

x 4 dump trucks

= 16 dump trucks

Multiplication

A Multiplication Table

This is a multiplication table.

You use a multiplication table to help you multiply. Move your finger along the top row to choose the number of groups you have to multiply and then move another finger down the left column to the number you have in each group. Then move your fingers down the column and across the row until they meet. The number where your fingers meet is your answer!

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

Multiplication

Multiplying by Zero and One

Any number multiplied by 0 is zero because it is zero groups of the number.

Example: $1 \times 0 = 0$ and $2 \times 0 = 0$

Solve the multiplication problems and write the answers in the boxes below.

$3 \times 0 =$	0
$10 \times 0 =$	0
$4 \times 0 =$	0
$7 \times 0 =$	0
$2 \times 0 =$	0

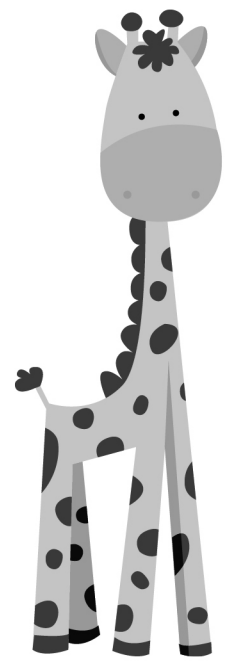
$5 \times 0 =$	0
$8 \times 0 =$	0
$1 \times 0 =$	0
$6 \times 0 =$	0
$9 \times 0 =$	0

Any number multiplied by 1 is the same because it is just one group of the number.

Example: $3 \times 1 = 3$ and $4 \times 1 = 4$

Solve the multiplication problems and write the answers in the boxes below.

$3 \times 1 =$	3
$9 \times 1 =$	9
$6 \times 1 =$	6
$8 \times 1 =$	8
$2 \times 1 =$	2



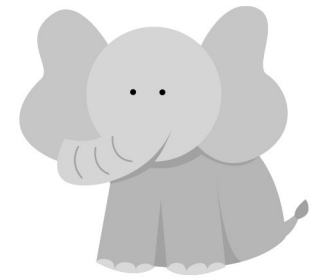
$5 \times 1 =$	5
$7 \times 1 =$	7
$1 \times 1 =$	1
$4 \times 1 =$	4
$10 \times 1 =$	10

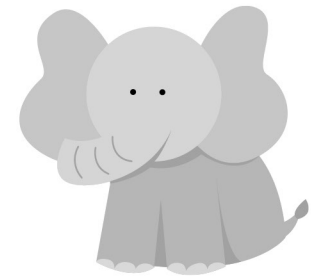
Multiplication

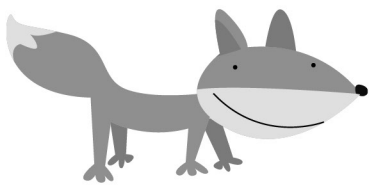
Multiplying by Two and Three

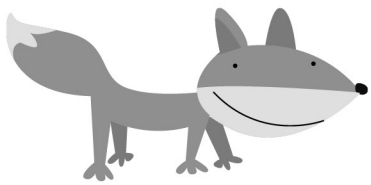
Solve the multiplication problems and write the answers in the boxes below. Use the multiplication chart on page 21 if you need help.

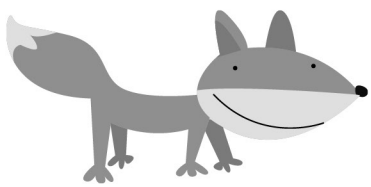
10 x 2 = 20	5 x 2 = 10
3 x 2 = 6	8 x 2 = 16
4 x 2 = 8	1 x 2 = 2
7 x 2 = 14	6 x 2 = 12
2 x 2 = 4	9 x 2 = 18











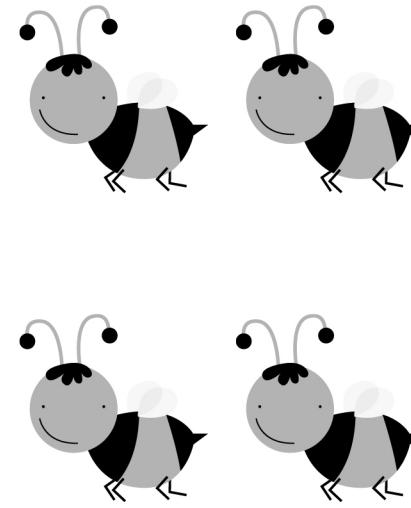
3 x 3 = 9	5 x 3 = 15
9 x 3 = 27	7 x 3 = 21
6 x 3 = 18	1 x 3 = 3
8 x 3 = 24	4 x 3 = 12
2 x 3 = 6	10 x 3 = 30

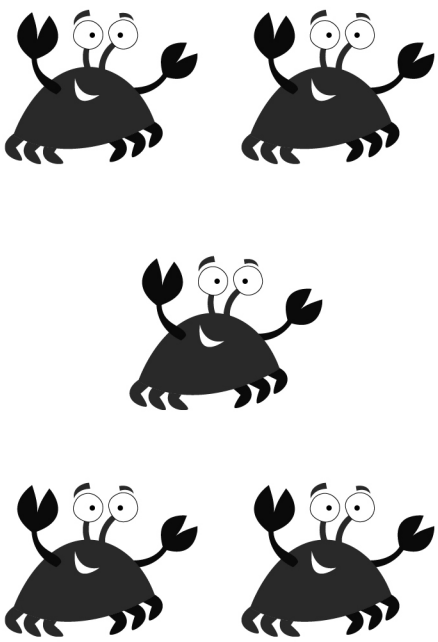
Multiplication

Multiplying by Four and Five

Solve the multiplication problems and write the answers in the boxes below. Use the multiplication chart on page 21 if you need help.

3 x 4 = 12	5 x 4 = 20
10 x 4 = 40	8 x 4 = 32
4 x 4 = 16	1 x 4 = 4
7 x 4 = 28	6 x 4 = 24
2 x 4 = 8	9 x 4 = 36





3 x 5 = 15	5 x 5 = 25
9 x 5 = 45	7 x 5 = 35
6 x 5 = 30	1 x 5 = 5
8 x 5 = 40	4 x 5 = 20
2 x 5 = 10	10 x 5 = 50

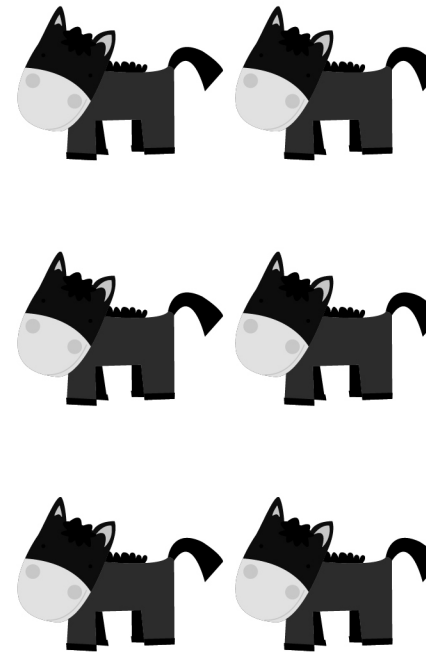
Multiplication

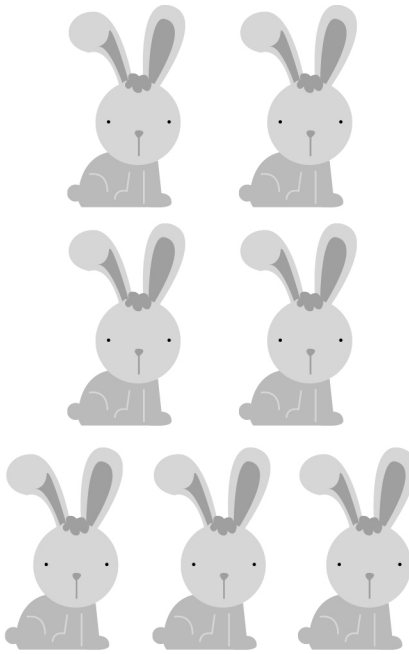
Multiplying by Six and Seven

Solve the multiplication problems and write the answers in the boxes below. Use the multiplication chart on page 21 if you need help.

3 x 6 =	18
10 x 6 =	60
4 x 6 =	24
7 x 6 =	42
2 x 6 =	12

5 x 6 =	30
8 x 6 =	48
1 x 6 =	6
6 x 6 =	36
9 x 6 =	54





3 x 7 =	21
9 x 7 =	63
6 x 7 =	42
8 x 7 =	56
2 x 7 =	14

5 x 7 =	35
7 x 7 =	49
1 x 7 =	7
4 x 7 =	28
10 x 7 =	70

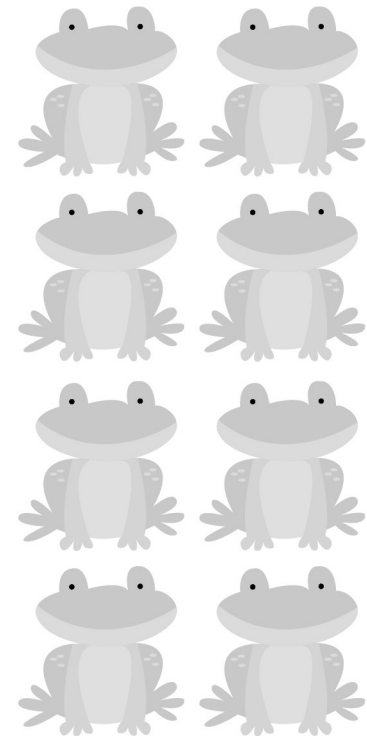
Multiplication

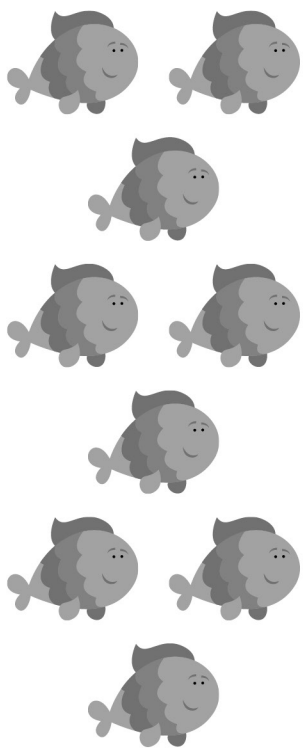
Multiplying by Eight and Nine

Solve the multiplication problems and write the answers in the boxes below. Use the multiplication chart on page 21 if you need help.

3 x 8 =	24
10 x 8=	80
4 x 8 =	32
7 x 8 =	56
2 x 8 =	16

5 x 8 =	40
8 x 8 =	64
1 x 8 =	8
6 x 8 =	48
9 x 8 =	72





3 x 9 =	27
9 x 9 =	81
6 x 9 =	54
8 x 9 =	72
2 x 9 =	18

5 x 9 =	45
7 x 9 =	63
1 x 9 =	9
4 x 9 =	36
10 x 9=	90

Multiplication

Mixed Multiplication

Practise multiplying. Write the answers on the lines below.

3 x 6 = 18

2 x 7 = 14

5 x 6 = 30

4 x 2 = 8

3 x 7 = 21

8 x 2 = 16

9 x 1 = 9

10 x 4 = 40

7 x 3 = 21

5 x 5 = 25

3 x 3 = 9

4 x 5 = 20

5 x 8 = 40

9 x 2 = 18

7 x 0 = 0

Multiplication

Multiplication Word Problems

When solving word problems, look for word clues. Numbers are clues! **Circle the numbers in the word problems and look for word clues. Hint: When a word problem has** MULTIPLE GROUPS TO ADD, **it means** MULTIPLY.

Example: Rory walks (2) miles to school every day. She goes to school (5) times a week. How many miles does she walk altogether?

$2 \times 5 = 10$

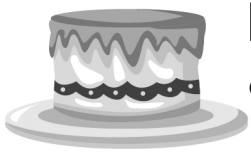
Circle the clues and solve the word problems. Write the answers on the lines below.

Lorelei loves pickles. She eats (2) pickles, (3) times a day. How many pickles does she eat every day?

2 x 3 = 6

Kirk owns (5) pairs of sunglasses. Patty owns (2) times that amount. How many sunglasses does Patty own?

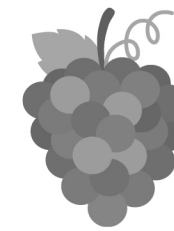
5 x 2 = 10



Richard bought (4) boxes of cakes. Each box has (4) cakes in it. How many total cakes does Richard have?

4 x 4 = 16

Emily eats (3) bunches of grapes. Each bunch has (10) grapes. How many grapes did Emily eat?



3 x 10 = 30

Exploring Division

Exploring Division

Dividing means separating things into smaller groups.

Example: There are 8 hats altogether.

They are placed into 2 equal groups.

8 hats divided by 2 groups is 4 hats in each group.

8 ÷ 2 = 4

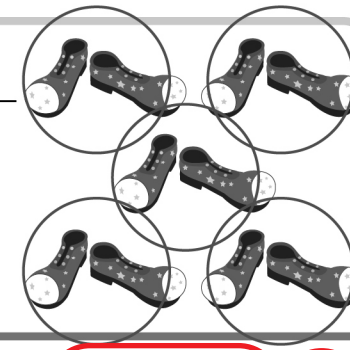
Circle the objects and answer the questions to divide. Write the answers on the lines below.

How many shoes are there altogether? 10

Circle groups of 2.

How many groups are there? 5

10 ÷ 2 = 5

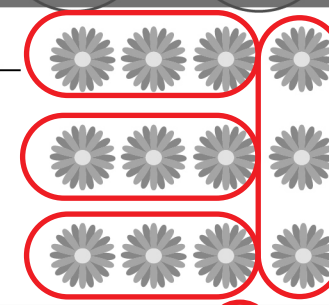


How many flowers are there altogether? 12

Circle groups of 3.

How many groups are there? 4

12 ÷ 3 = 4

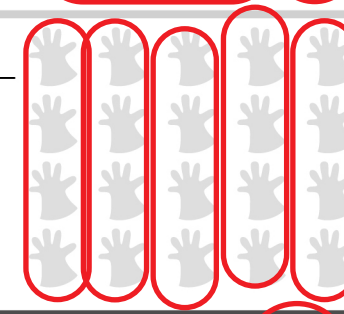


How many gloves are there altogether? 20

Circle groups of 4.

How many groups are there? 5

20 ÷ 4 = 5

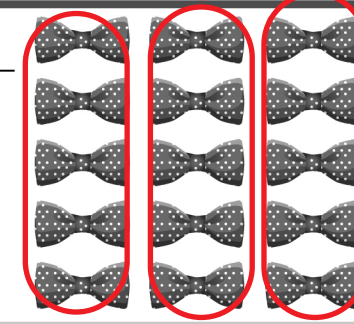


How many bows are there altogether? 15

Circle groups of 5.

How many groups are there? 3

15 ÷ 5 = 3



Exploring Division

Division Practice

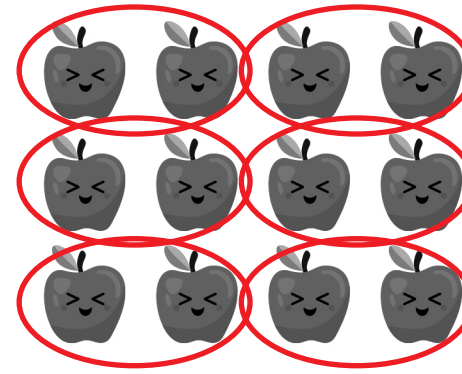
Circle the objects and answer the questions to divide. Write the answers on the lines below.

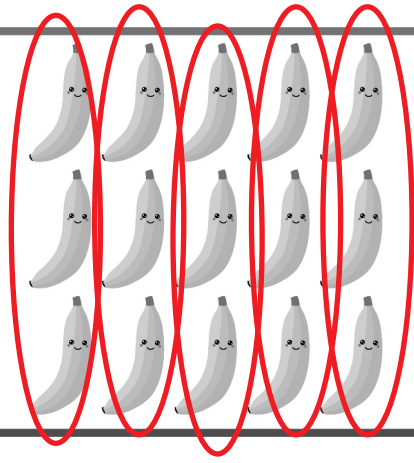
How many apples are there altogether? 12

Circle groups of 2.

How many groups are there? 6

12 ÷ 2 = 6





How many bananas are there altogether? 15

Circle groups of 3.

How many groups are there? 5

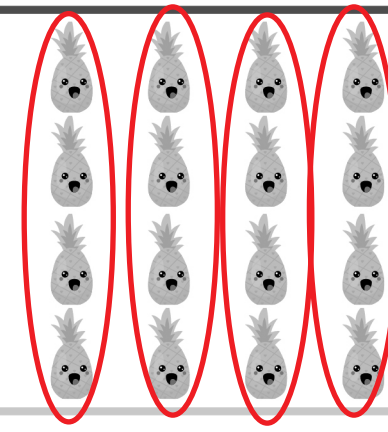
15 ÷ 3 = 5

How many pineapples are there altogether? 16

Circle groups of 4.

How many groups are there? 4

16 ÷ 4 = 4



How many watermelons are there altogether? 10

Circle groups of 5.

How many groups are there? 2

10 ÷ 5 = 2

Exploring Division

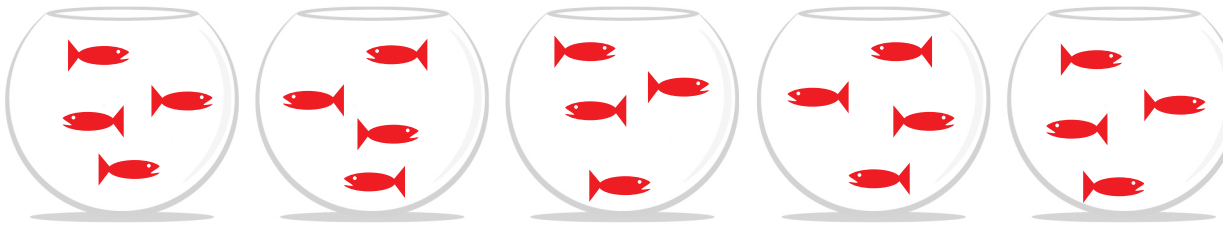
Division Practice

Draw the groups to help you divide. Then solve the problems and write the answers on the lines below.

Divide 20 fish equally into 5 fishbowls.

There are 4 fish in each fishbowl.

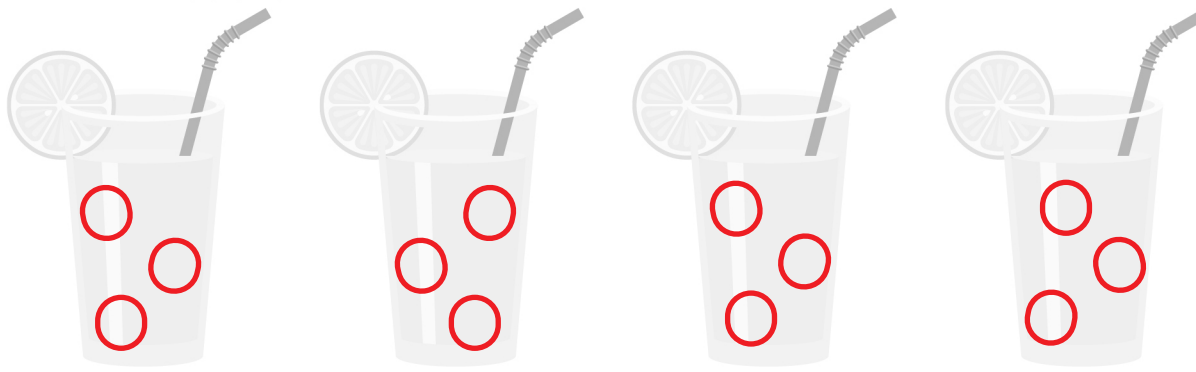
20 ÷ 5 = 4



Divide 12 ice cubes equally into 4 glasses of lemonade.

There are 3 ice cubes in each glass of lemonade.

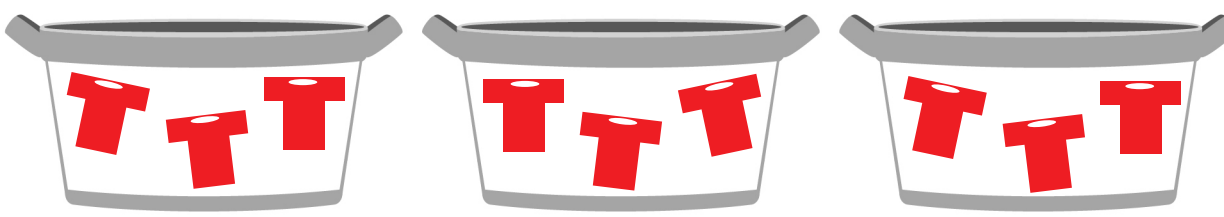
12 ÷ 4 = 3



Divide 9 T-shirts equally into 3 laundry baskets.

There are 3 T-shirts in each laundry basket.

9 ÷ 3 = 3



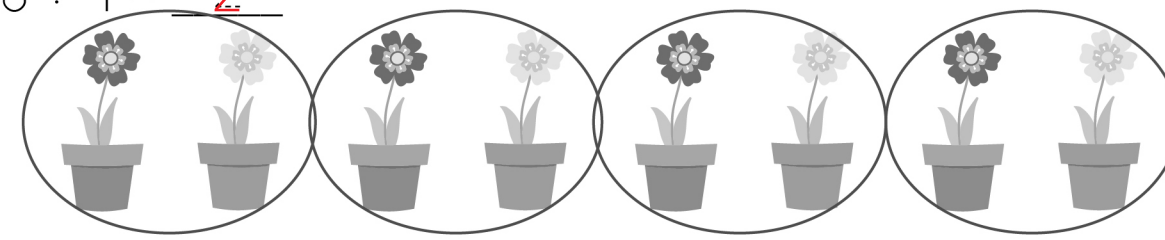
Exploring Division

Division Word Problems

Circle the groups to help you divide. Then solve the division problems and write the answers on the lines below.

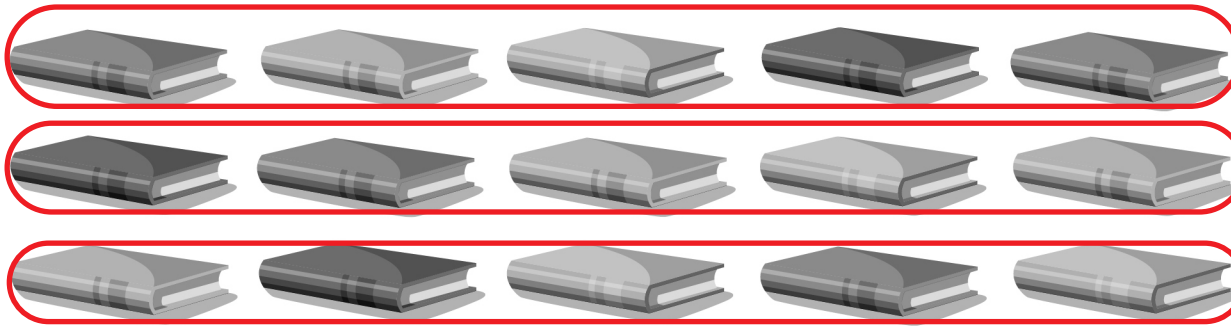
Annie has 8 flowerpots to give to her 4 friends.
How many flowerpots does each friend get?

8 ÷ 4 = 2



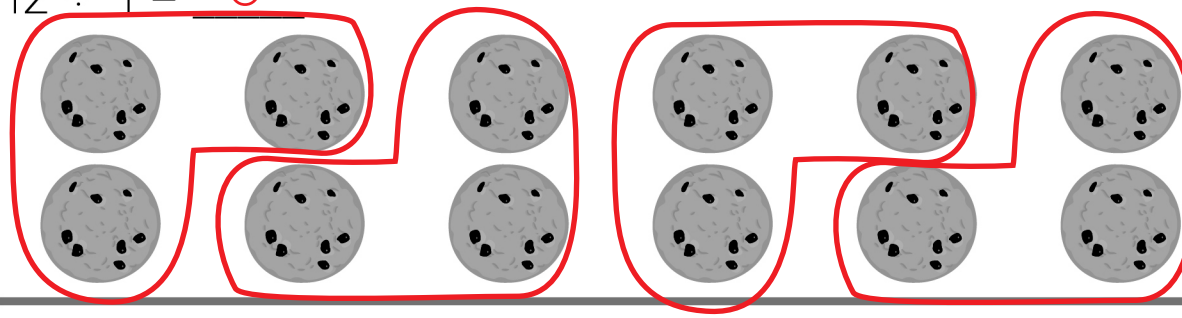
Pat has 15 books to put into 3 boxes.
How many books go into each box?

15 ÷ 3 = 5



Katie has 12 cookies on a plate. She wants to share them equally with 4 friends. How many cookies does each friend get?

12 ÷ 4 = 3

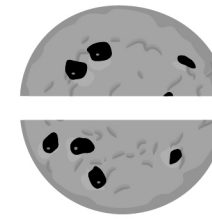


Fractions

Fractions

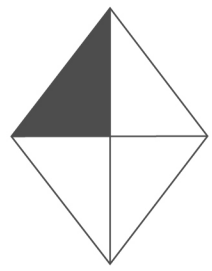
Fractions are parts of a whole number. Each piece represents a part of the whole.

Example: If a cookie is cut into two equal parts, each piece is $\frac{1}{2}$ of the whole cookie.



The denominator is the bottom number of a fraction that tells how many pieces there are in the whole. The numerator is the top number of the fraction that shows how many pieces are being described.

Example:



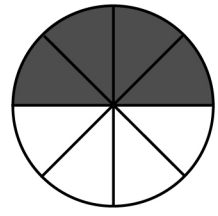
$= \frac{1}{4}$ numerator / denominator

The 1 shows how many pieces are shaded.

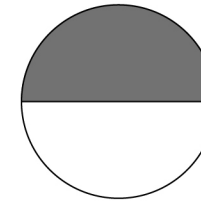
The 4 shows how many pieces there are in the whole shape.

Write the numerators or denominators for the fractions shown below.

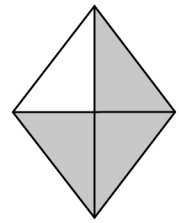
$\frac{4}{8}$



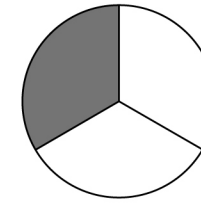
$\frac{1}{2}$



$\frac{3}{4}$

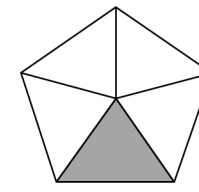


$\frac{1}{3}$



$\frac{5}{8}$

$\frac{1}{5}$

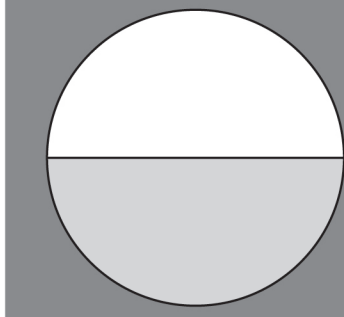


Fractions

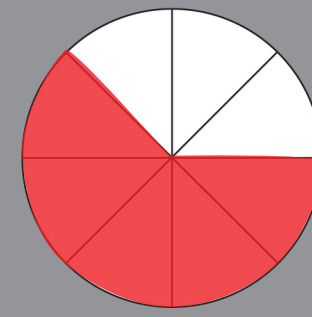
Fractions

Colour the shape to match the fraction.

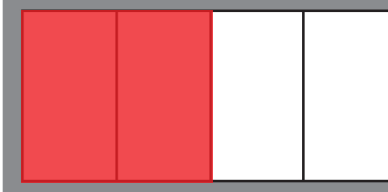
$\frac{1}{2}$



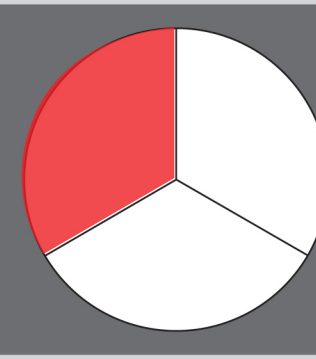
$\frac{5}{8}$



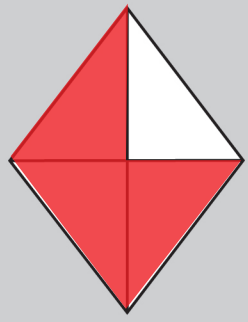
$\frac{2}{4}$



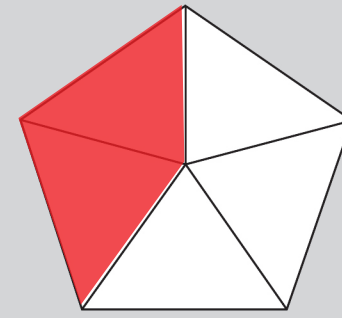
$\frac{1}{3}$



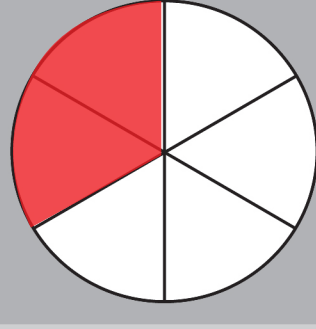
$\frac{3}{4}$



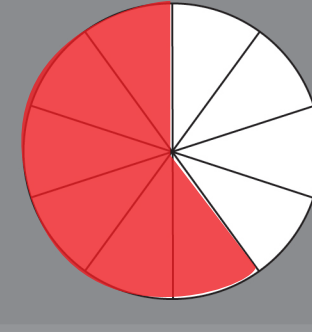
$\frac{2}{5}$



$\frac{2}{6}$



$\frac{6}{10}$



Money

Counting Mixed Coins

Write the value of each coin on the lines below.

toonie

$2

loonie

$1

quarter

25¢

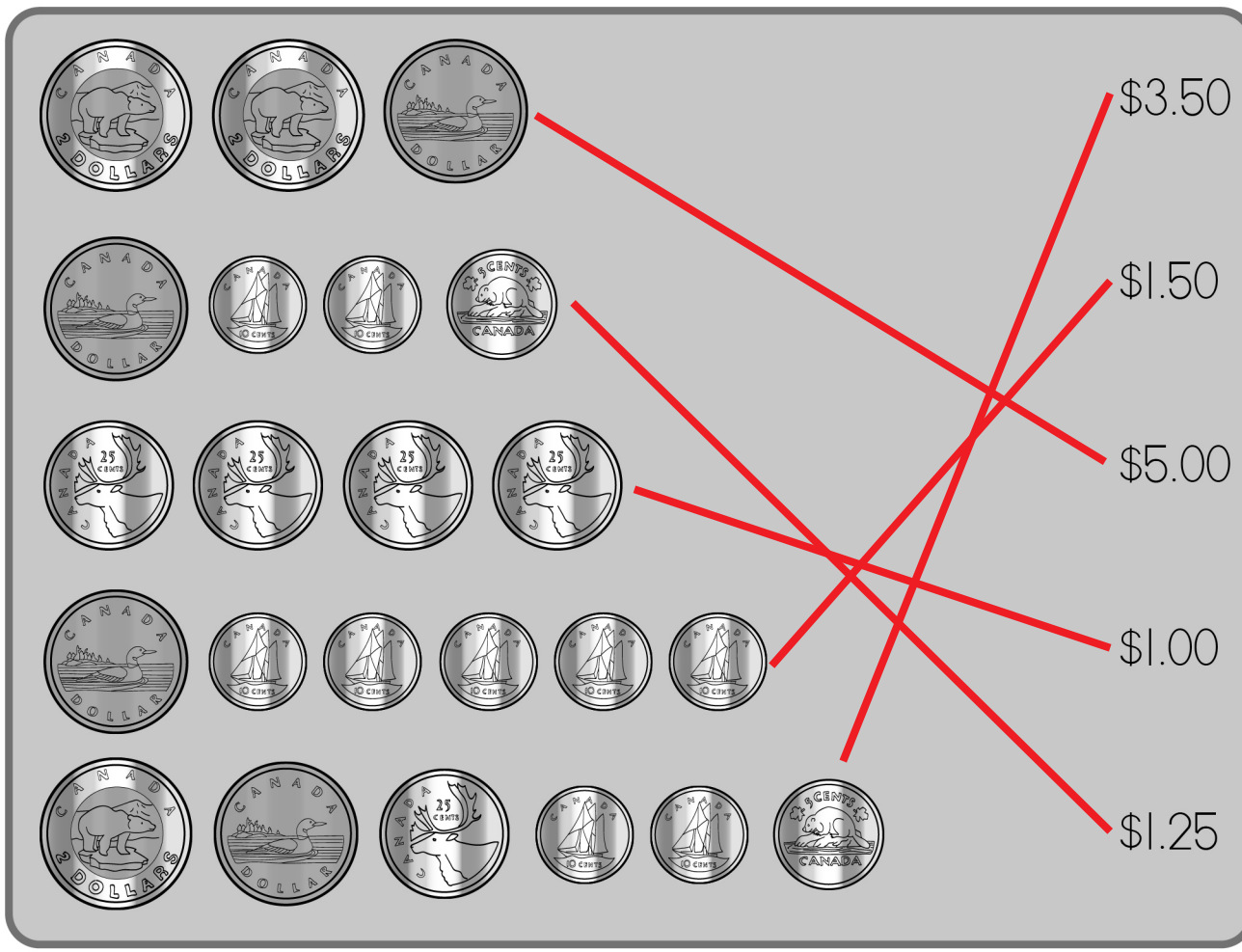
dime

10¢

nickel

5¢

Count the coins and draw a line to the correct amount.



Word Problem

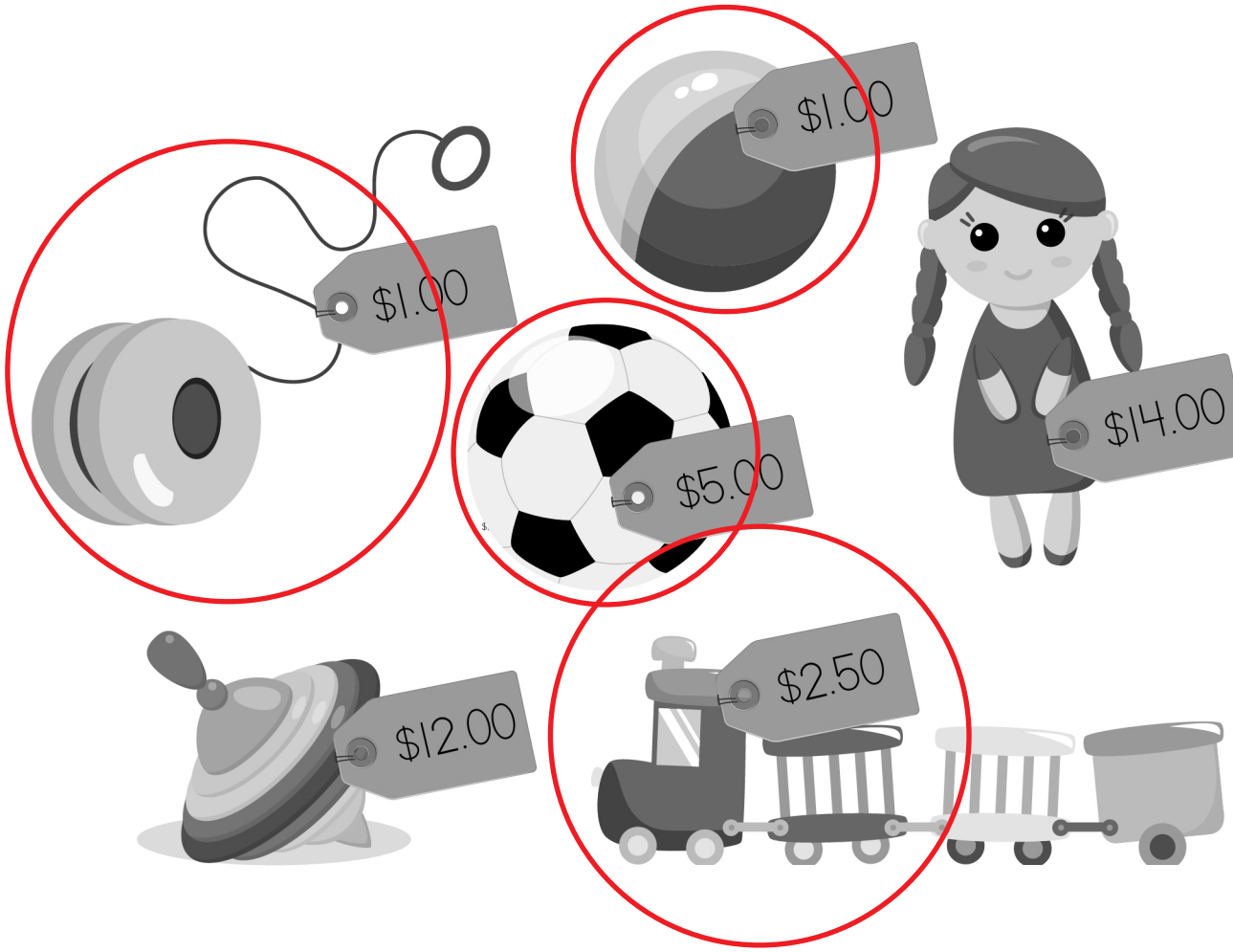
Lea emptied out her wallet to count her money. She had 2 loonies, 1 toonie, and 3 quarters. How much money does she have in all?

$4.75

Making Change

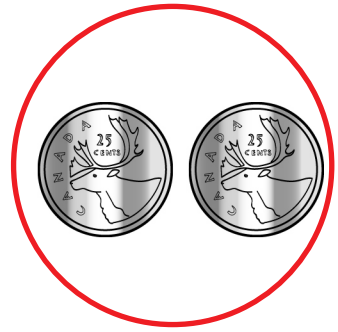
Follow the directions below.

Olivia and Maria go shopping. They each have $5.00. They want to buy the most toys they can with their combined money. Circle all of the things they can buy with their $10.00.



If Olivia and Maria pay for their toys with $10.00 and their toys only cost $9.50, how much change should they get back?

Circle the correct answer.



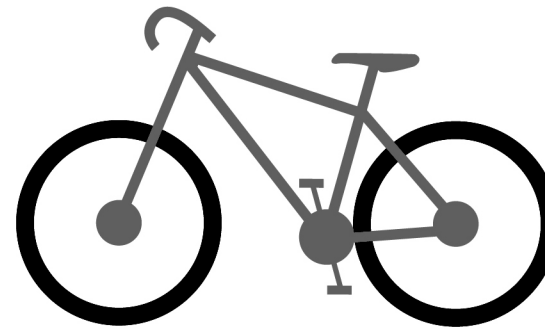
Measurement

Measuring Length

A centimetre is written like this: cm.
It is used to measure small things.

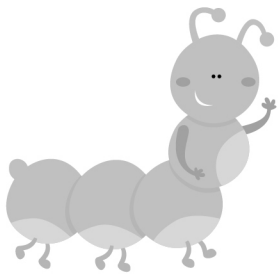
A metre is written like this: m.
It is used to measure bigger things.

A kilometre is written like this: km.
It is used to measure very big things.



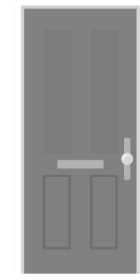
An estimate is an educated guess. Sometimes we need to make an educated guess about how long something is.

Look at the pictures below and circle the unit of measurement that would be the best for measuring each object.



(cm) m

m (km)



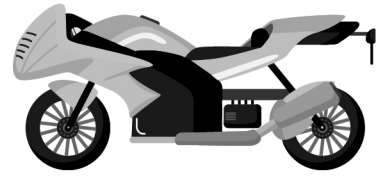
(m) km

(cm) m

(cm) m

(m) km

(cm) m



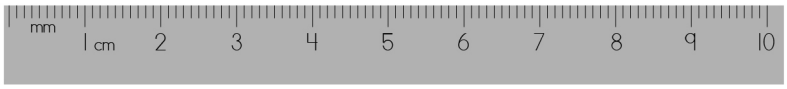
(m) km

m (km)

Measurement

Measuring Length

Measure the objects using the ruler. Write the answers on the lines below.



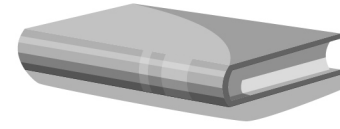
8 cm

7 cm

3 cm

Read the word problems and circle or write the answers on the lines below.

Stacia wants to measure the length of her book. Which measurement should she use?



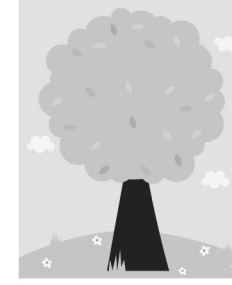
(cm) m km

Chad threw a baseball 9 metres. His friend Carol threw it 4 more metres. How far did they throw the ball altogether?

9 m + 4 m = 13 m

Lauren wants to measure how tall the tree in her front yard is. Which measurement should she use?

cm (m) km



Measurement

Capacity

If you want to know how much a container holds, for example how much water a swimming pool can hold, you want to know its capacity.

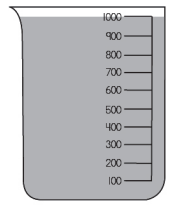
A litre is written like this: L.

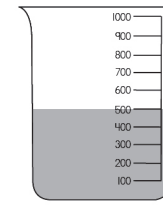
It is used to measure large containers, like a pool or a bathtub.

A millilitre is written like this: ml.

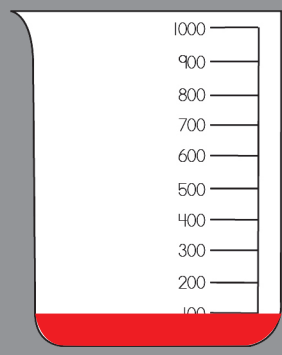
It is used to measure small containers, like a spoon.

Example: 1 litre = 1000 millilitres and $\frac{1}{2}$ litre = 500 millilitres

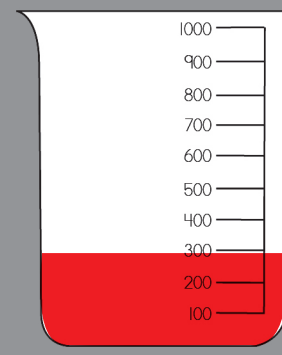




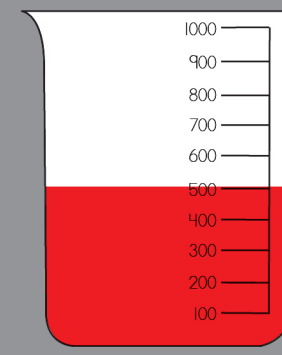
Colour each container to the correct measurement in millilitres.



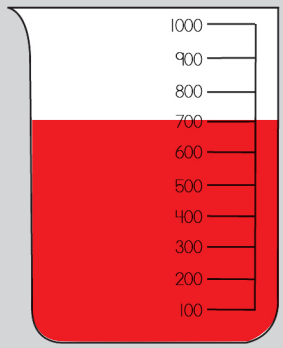
100 ml



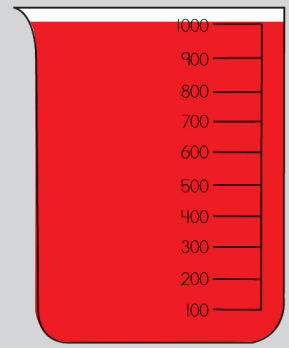
300 ml



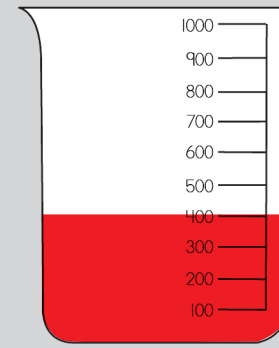
500 ml



700 ml



1 L



400 ml

Measurement

Capacity

You can use what you know about fractions to measure.

Example:

$\frac{1}{4}$ (1 quarter)

$\frac{1}{2}$ (1 half)

$\frac{3}{4}$ (3 quarters)

full

We can use what we know to compare the capacities of the containers below. Look at the containers and write the amount they hold in litres on the lines below. Then show the comparison by writing the < > or = signs in the circle.

$\frac{1}{2}$ litre

1 litre

5 litres

5 litres

5 litres

1 litre

$\frac{1}{2}$ litre

$\frac{1}{2}$ litre

$\frac{1}{2}$ litre

1 litre

1 litre

1 litre

1 litre

1 litre

5 litres

$\frac{1}{2}$ litre

Word Problem

If a plastic pool holds 20 litres of water, how many 5 litre buckets of water do you need to fill it up?

20 ÷ 5 = 4

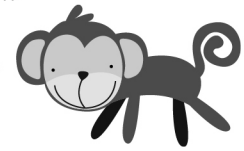
20 litres

5 litres

Measurement

Mass

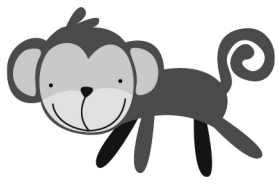
Mass is a measurement of how much matter is in an object. Mass is usually measured in kilograms (kg) or grams (g). 1000 grams equals 1 kilogram.

Example: A monkey weighs about 5 kg. 

A lion cub weighs about 20 kg.

A baby elephant weighs about 100 kg. 

Look at the animals and write their mass on the lines below. Then show the comparison by writing the < > or = signs in the circle.

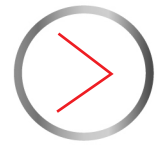


5 kg

20 kg

100 kg

20 kg

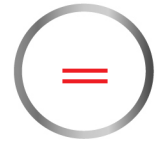


5 kg

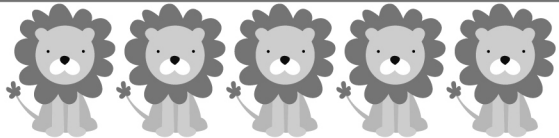
5 kg 5 kg

100 kg

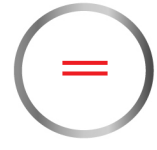
5 kg 5 kg 5 kg 5 kg



20 kg



20 kg 20 kg 20 kg 20 kg 20 kg



100 kg

Time

Clocks and Telling Time

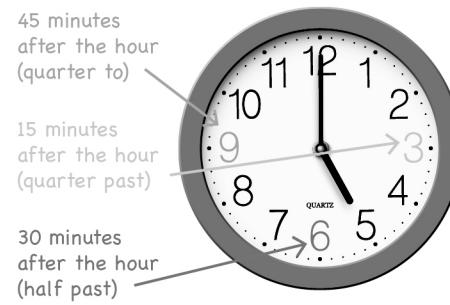
Clocks can look different.

This is an analog clock.

It has a long hand and a short hand.

It has the numbers 1–12 around the outside.

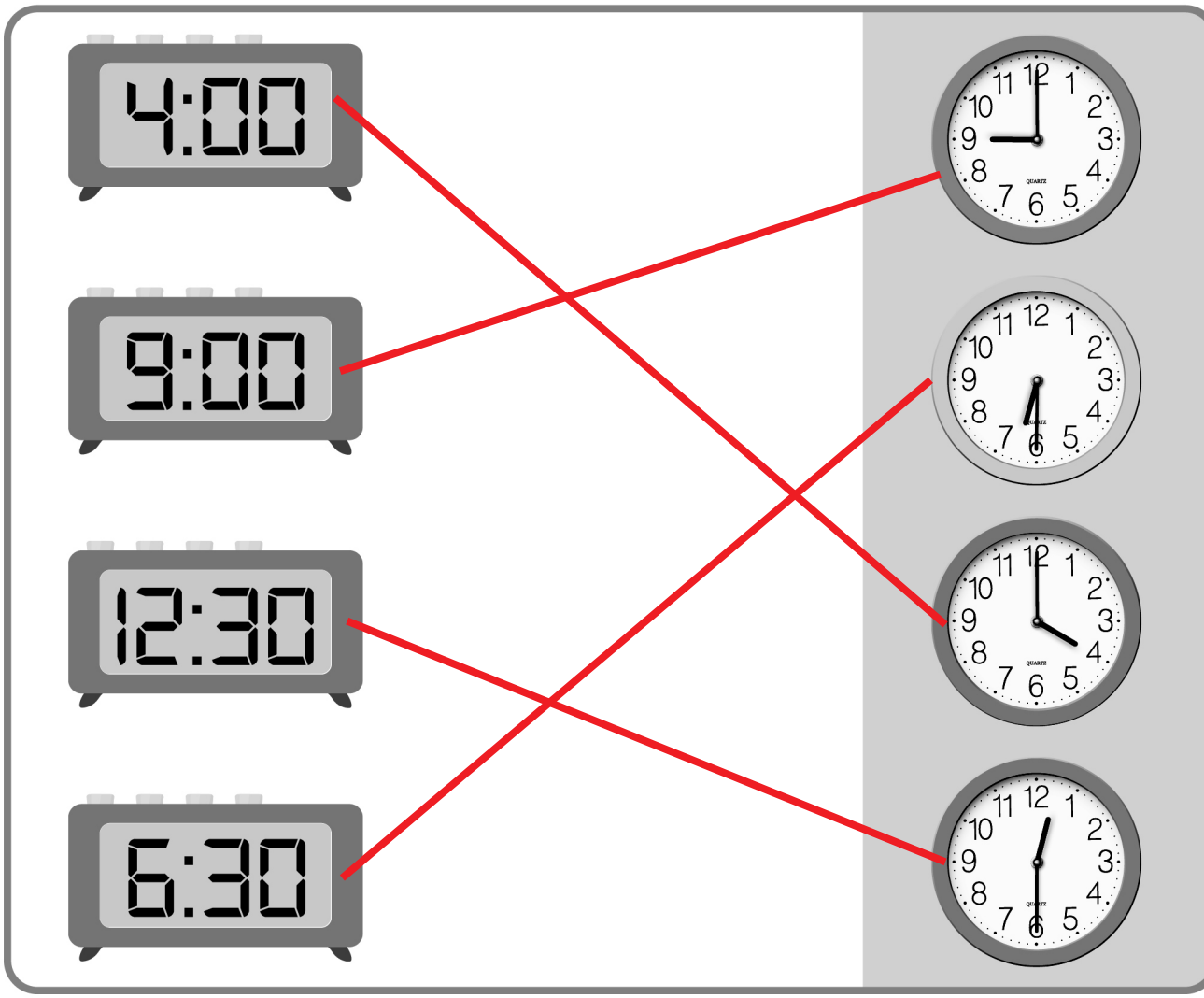
The long hand points to the minute and the short hand points to the hour. This clock says 5 o'clock.



This is a digital clock.

The first number shows the hour and the second two numbers tell how many minutes after the hour it is. This clock says 3 o'clock.

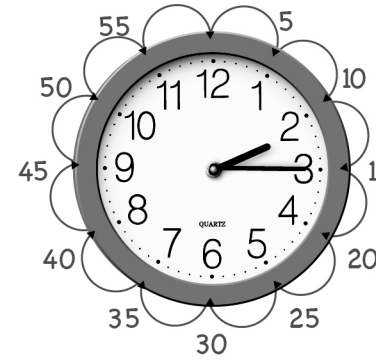
Draw a line to from the digital time to the matching analog clock.



Time

Time to the Minute

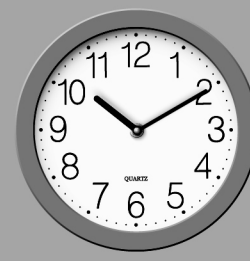
The minute hand tells how many minutes past the hour it is. Every time the minute hand moves from one number to the next, it has been 5 minutes. Skip count by fives to tell how many minutes after the hour it is.



Example: It is 2:15.

What time is it? Write the time under each clock.

2:20



10:10

4:35

3:40

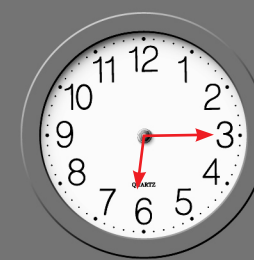
6:45

11:50

What time is it? Draw the hands on the clocks to match the digital times.

5:05

3:55



6:15

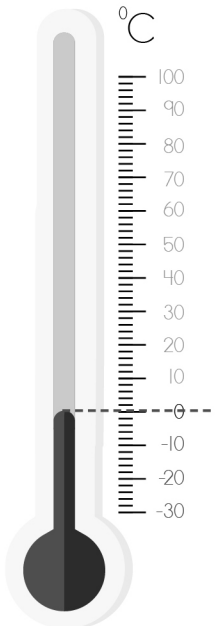
Temperature

Temperature

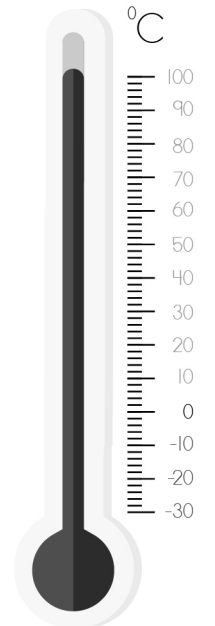
We measure temperature with a tool called a thermometer. We tell the temperature in degrees Celsius.

The lines on the thermometers below each represent 2 degrees Celsius. When we read the temperature on these types of thermometers, we count by twos.

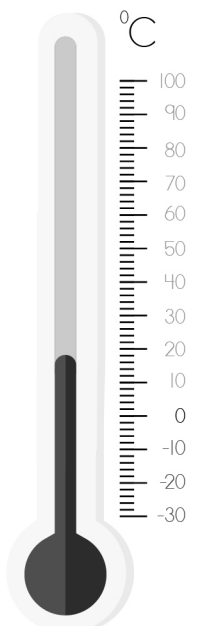
Read the thermometers and write the temperatures on the lines below.



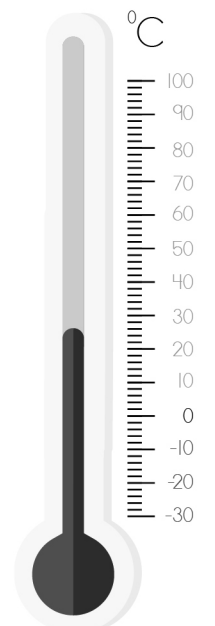
0 °C



100 °C



18 °C



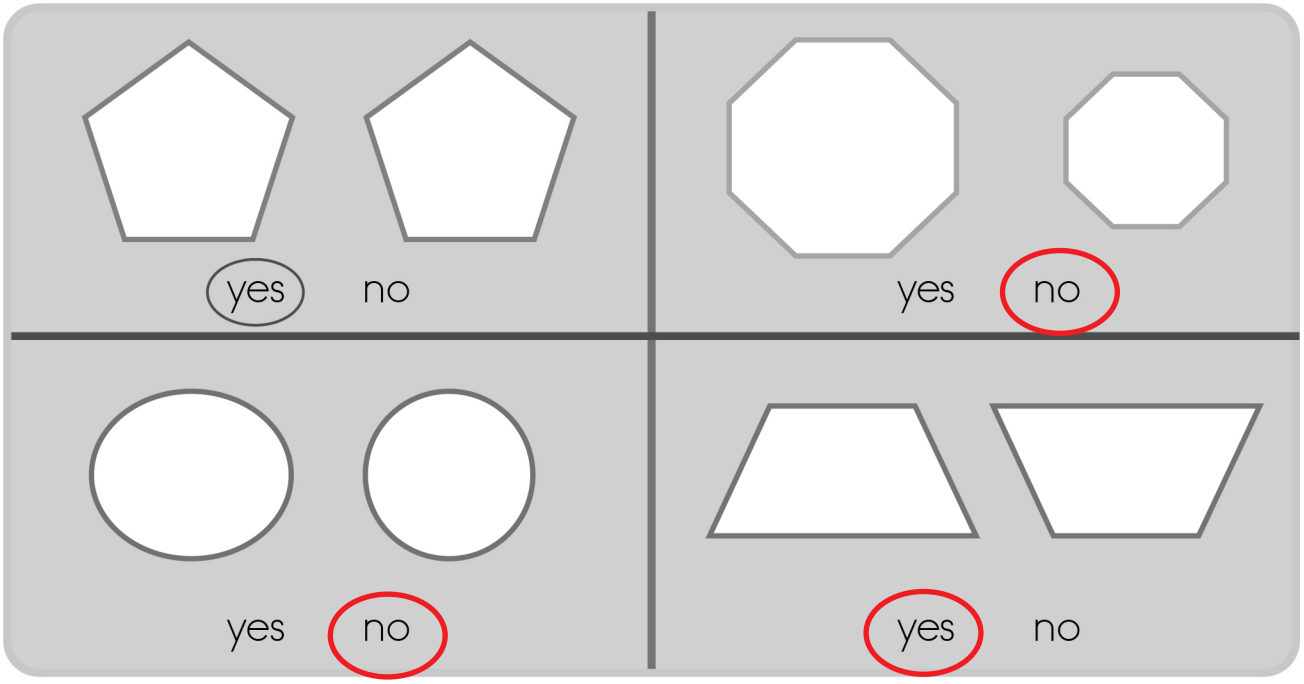
26 °C

Geometry

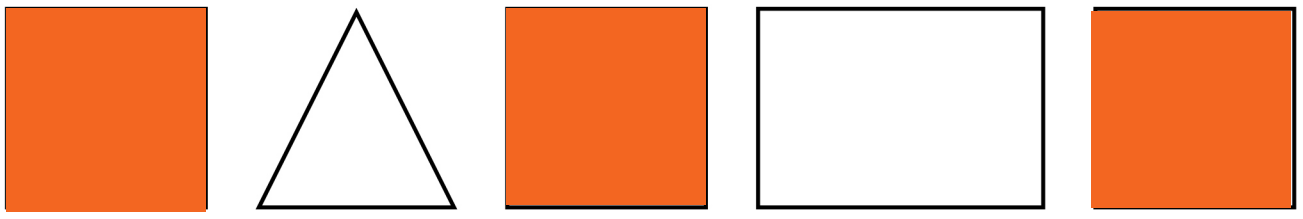
Congruent Shapes

Congruent shapes are figures that are the same size and shape.

Are the shapes below congruent? Circle yes or no.



Colour the congruent figures orange.



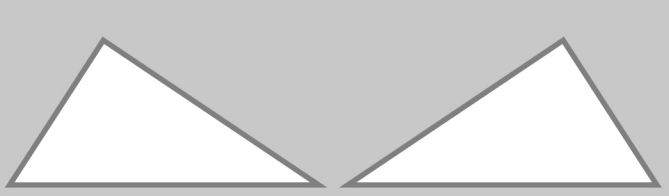
Draw two figures that are congruent in the box below.

Geometry

Congruent Shapes

Congruent shapes can be different colours and facing different directions and still be congruent.

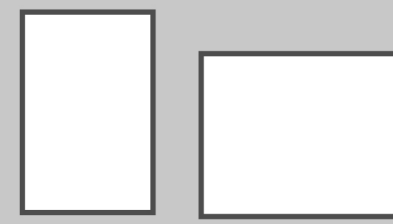
Look at the shapes below. Write whether the shapes are congruent or not congruent under each set of shapes.



congruent

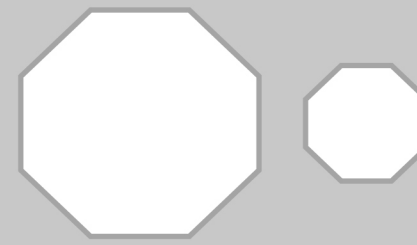
not congruent

congruent



not congruent

congruent



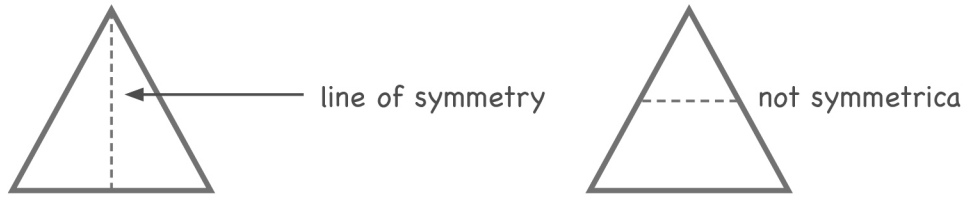
not congruent

Geometry

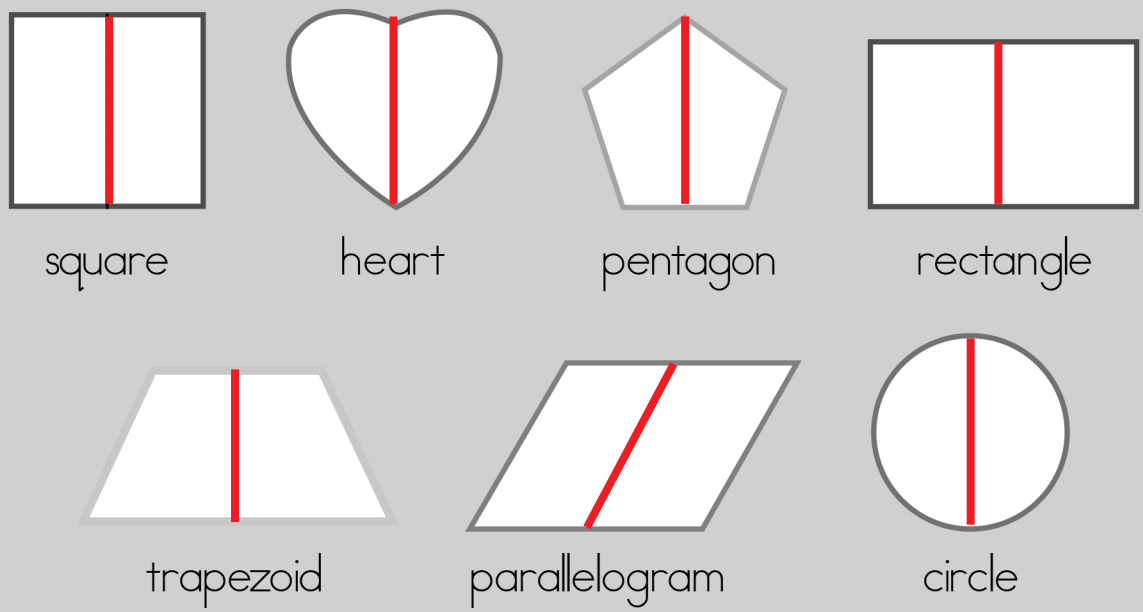
Symmetry

Symmetry is when an object or shape is balanced across a center line. Both sides are mirror images of each other.

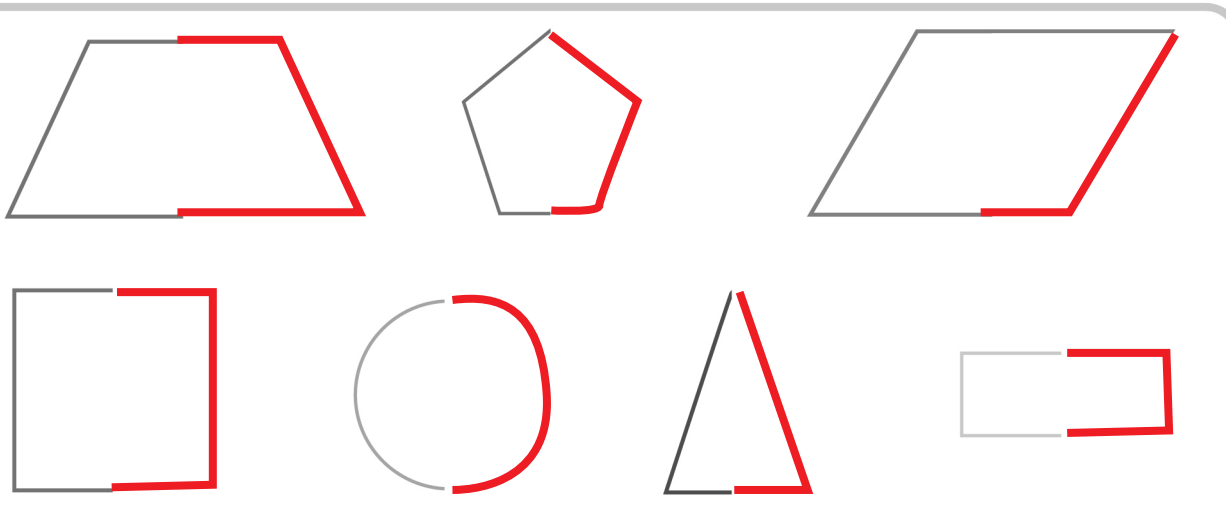
Example:



Draw a line of symmetry dividing the shapes so they are the same on both sides.



Draw the missing part of the shapes below.



Geometry

Identifying Polygons

A polygon is any two-dimensional shape with three or more sides. That means there are a lot of different kinds of polygons!

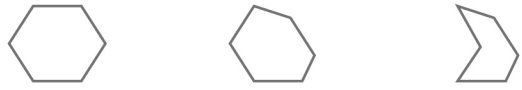
Many shapes are named for their attributes.

Example: A triangle has 3 sides. "Tri" means three.

A quadrilateral has 4 sides. "Quad" means four.

A pentagon has 5 sides. "Penta" means five.

A hexagon has 6 sides. "Hexa" means six.



A heptagon has 7 sides. "Hepta" means seven.

An octagon has 8 sides. "Octa" means eight.

Draw a line from the name of the shape to the matching polygon. Then write how many sides each polygon has on the lines below.

octagon hexagon heptagon

pentagon triangle quadrilateral

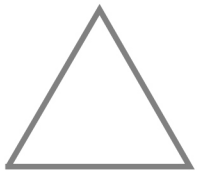
3 sides 7 sides 4 sides 6 sides 5 sides 8 sides

Geometry

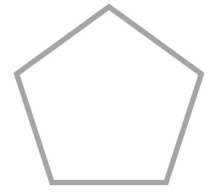
Identifying Polygons by Their Attributes

Every shape has attributes that identify it. Attributes include the sides and vertices of a shape. Vertices are the points where the sides meet.

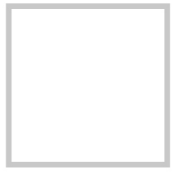
Identify the attributes of the polygons by writing the number of sides and vertices they have on the lines below.



3 sides
3 vertices



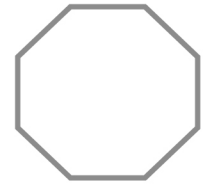
5 sides
5 vertices



4 sides
4 vertices

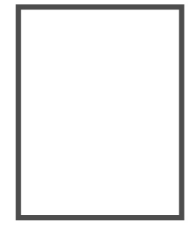
7 sides
7 vertices

4 sides
4 vertices

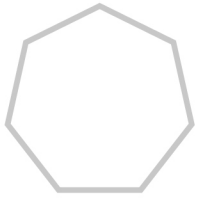


8 sides
8 vertices

4 sides
4 vertices



4 sides
4 vertices

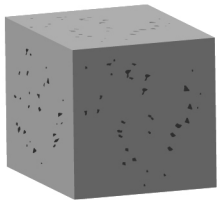


7 sides
7 vertices

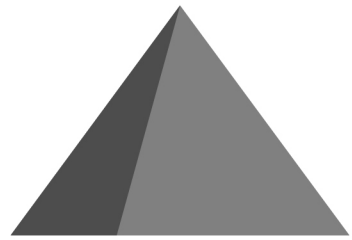
3 sides
3 vertices

Geometry

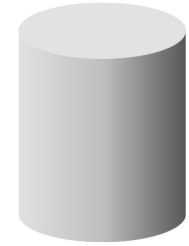
3-Dimensional Shapes



cube

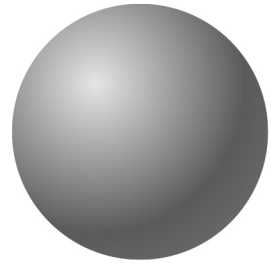


pyramid

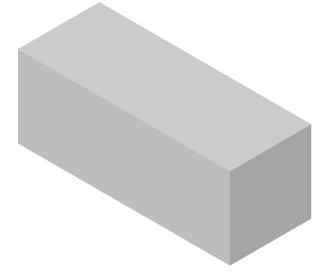


cylinder

cone



sphere



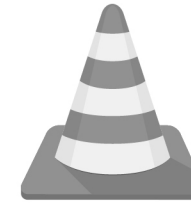
rectangular prism

Write what shape each object is on the lines below. Use the 3-D shapes above to help you.

cylinder

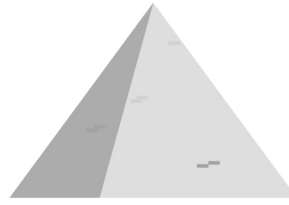
sphere

cube



cone

cone



pyramid

sphere

rectangular prism

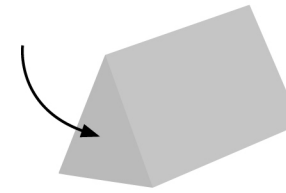
Geometry

Identifying Prisms by Their Base Shapes

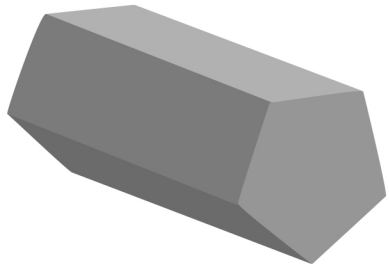
Prisms are three-dimensional figures that are named for their base shapes. They have two bases, one on top and one on the bottom, that are the same.

Example: This is a triangular prism.

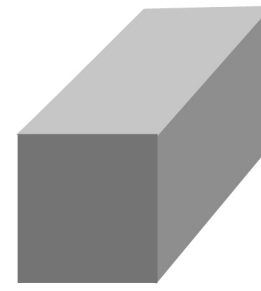
It is named this because the top and bottom bases of the prism are triangles.



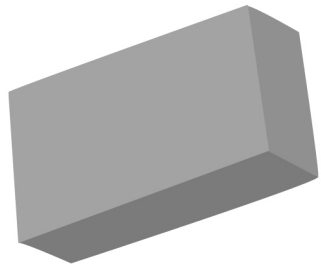
Identify the prisms by naming the shape of the bases. Write the answers on the lines below.



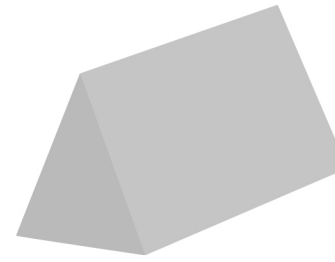
pentagon bases



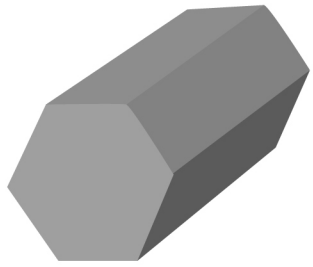
square bases



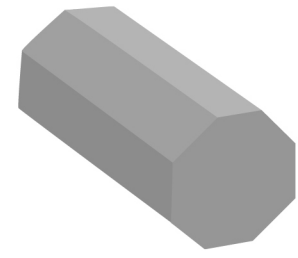
rectangle bases



triangle bases



hexagon bases



octagon bases

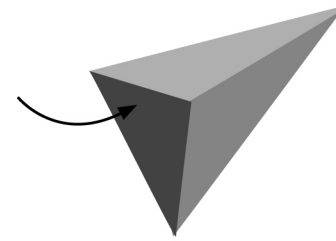
Geometry

Identifying Pyramids by Their Base Shapes

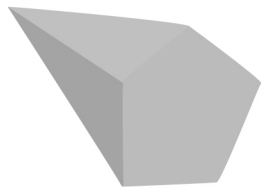
Pyramids are three-dimensional figures that are also named for their base shapes. They have one base and triangular sides.

Example: This is a triangular pyramid.

It is named this because the base is a triangle.

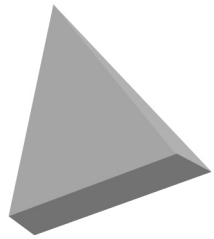


Identify the pyramids by naming the base shape. Write the answers on the lines below.

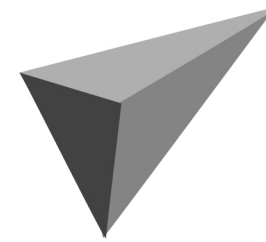


pentagon base

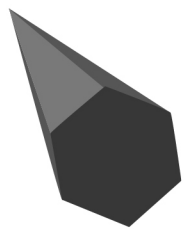
square base



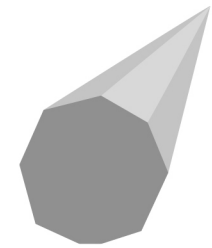
rectangle base



triangle base



hexagon base



octagon base

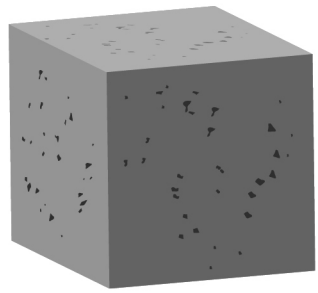
Geometry

Identifying 3-D Shapes by Their Attributes

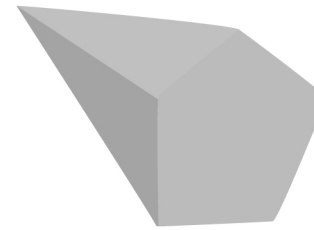
Every three-dimensional shape has attributes that identify it.

Attributes are the edges, faces, and vertices of the shape. The faces of a three-dimensional shape are flat surfaces.

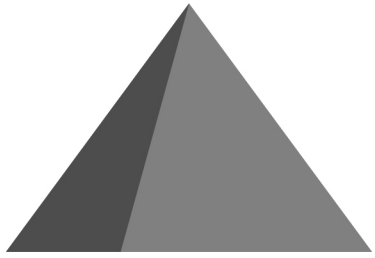
Identify the 3-D shapes by writing the number of faces they have on the lines below.



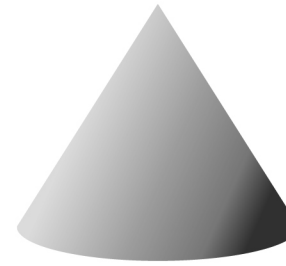
6 faces



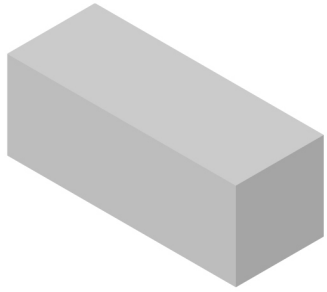
6 faces



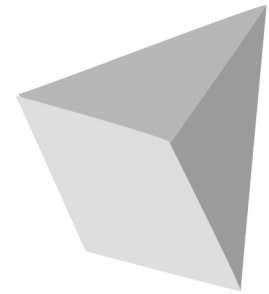
4 faces



1 face



6 faces



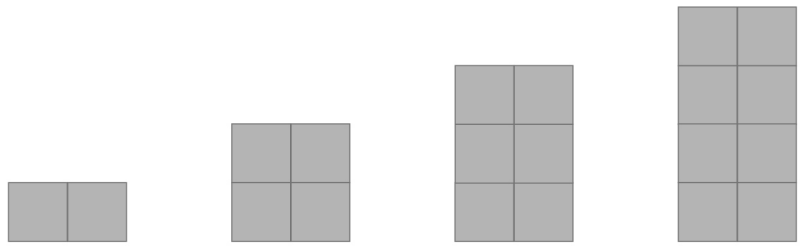
5 faces

Patterns

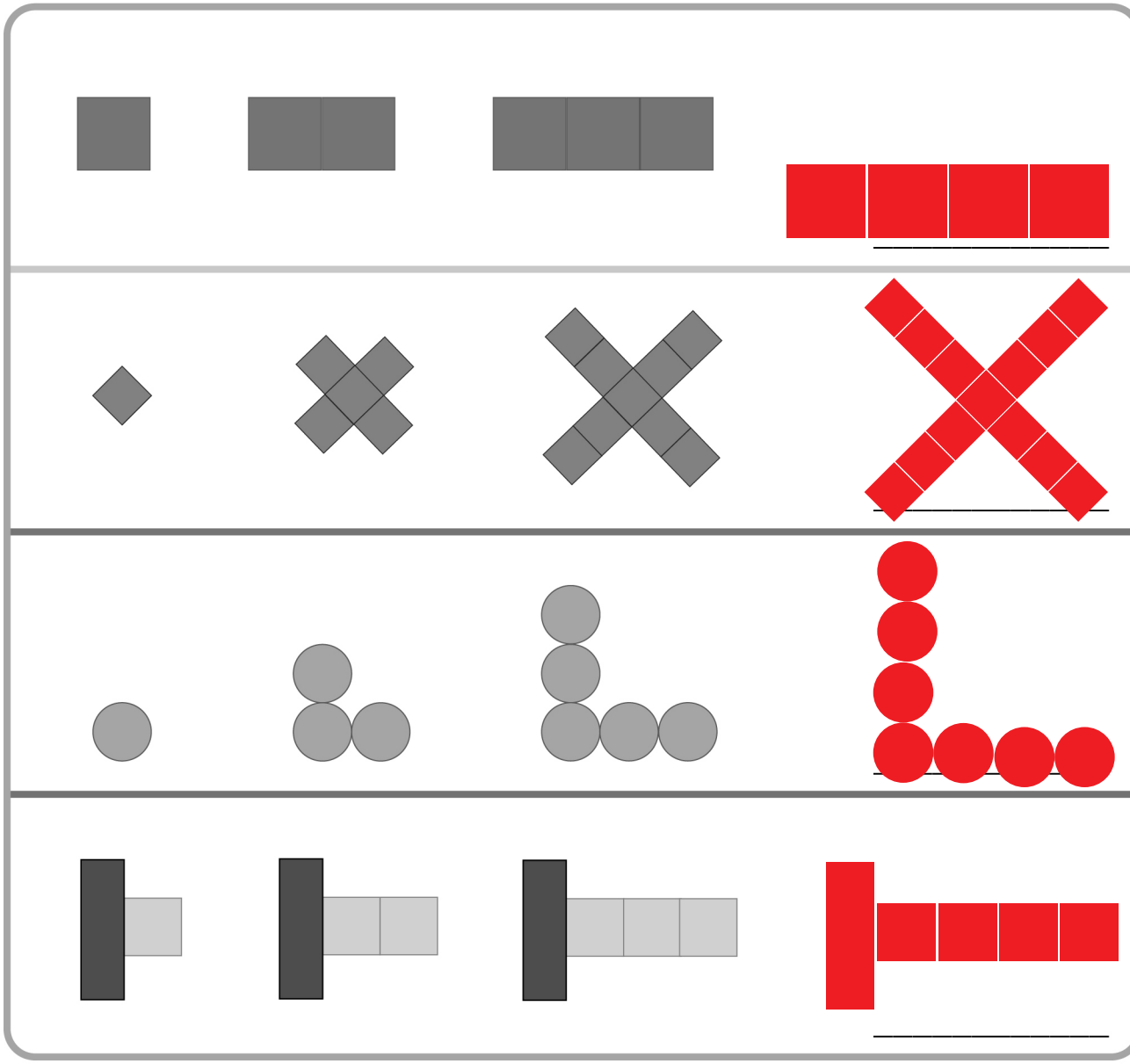
Growing Patterns

A growing pattern shows an increase in the pattern. Something is added to the pattern with every sequence.

Example:



Look at the growing patterns below and draw the next shape or shapes in the pattern.

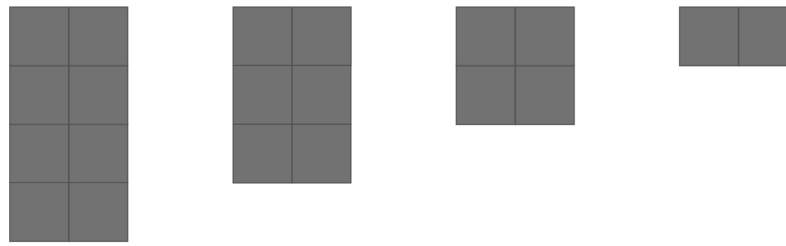


Patterns

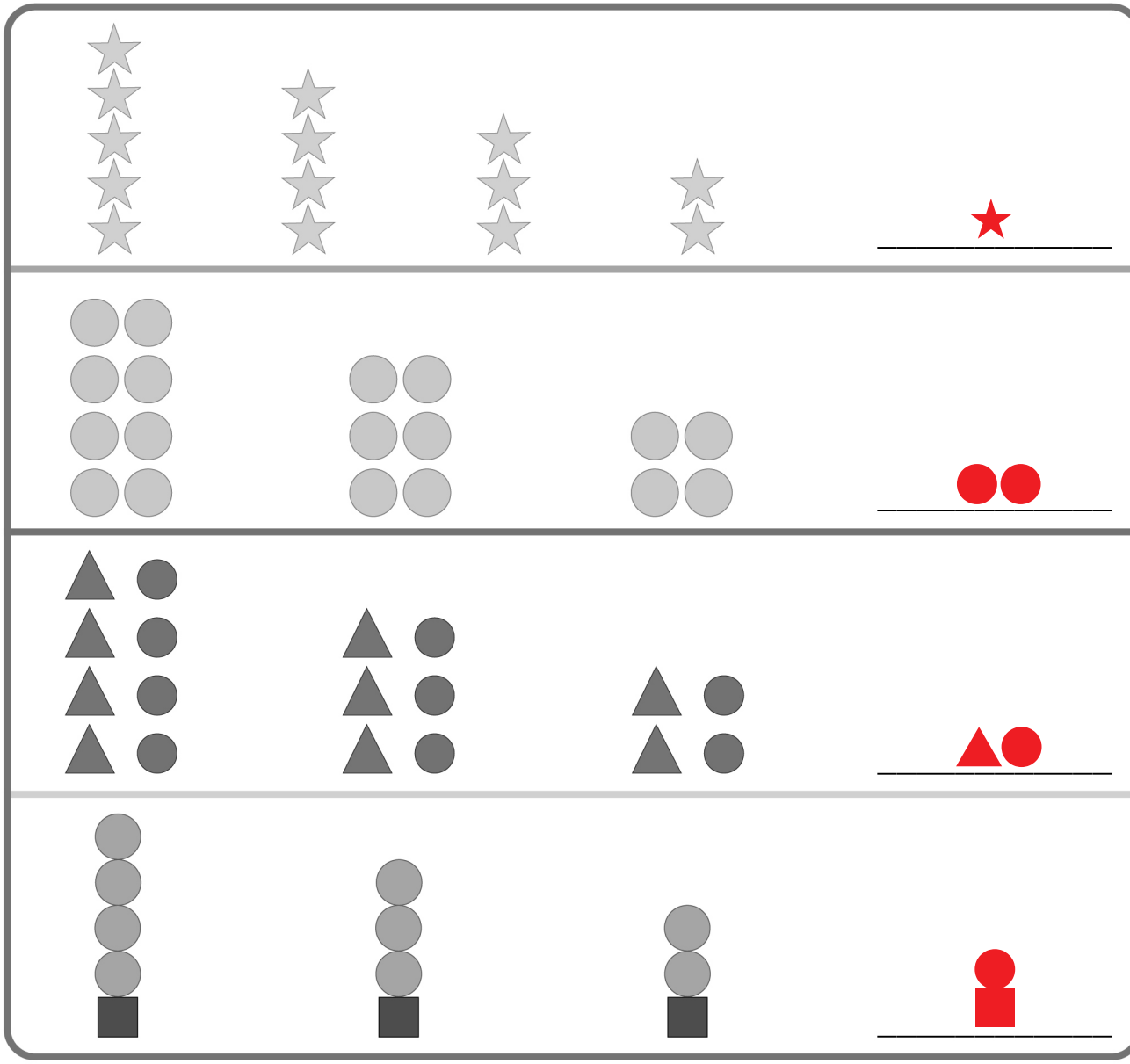
Shrinking Patterns

A shrinking pattern shows a decrease in the pattern. Something is taken away with every sequence.

Example:



Look at the shrinking patterns below and draw the next shape or shapes in the pattern.



Probability

Probability

Probability is estimating how likely something is to happen.

Example: It is unlikely that she will go for a swim.
It is likely that she will make snow angels.

Look at the pictures below. How likely are the events?
Circle the correct answer.

Ming is going to make a snowball.

(unlikely) likely

Jamal is going to play the guitar.

unlikely (likely)

Henry is going kayaking.

(unlikely) likely

Julio is going to play soccer.

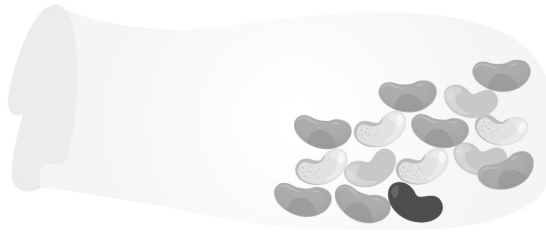
unlikely (likely)

Probability

Probability

Look at the jelly beans in the bag. If you reach in, what colour jelly bean are you most likely to pull out of the bag?

Example:



A red one is least likely to get pulled out because there is only one.

A green one is most likely to get pulled out because there are more green jelly beans than any other colour.

Look at the chart showing the coins in a change jar. Analyze the data and answer the questions. Write the answers on the lines below.

nickels	dimes	quarters	loonies
16	7	5	3

If you put your hand into the jar, what coin are you most likely to pull out? Why?

A nickel because there are more of them than any other coin.

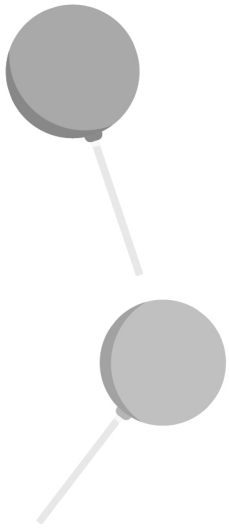
If you put your hand into the jar, what coin are you least likely to pull out? Why?

A loonie because there are fewer of them than any other coin.

Probability

Probability

Analyze the data and answer the questions about choosing a piece of candy from a bag. Write the answers on the lines below.



COLOUR	NUMBER IN BAG
purple	5
green	7
pink	11
blue	4

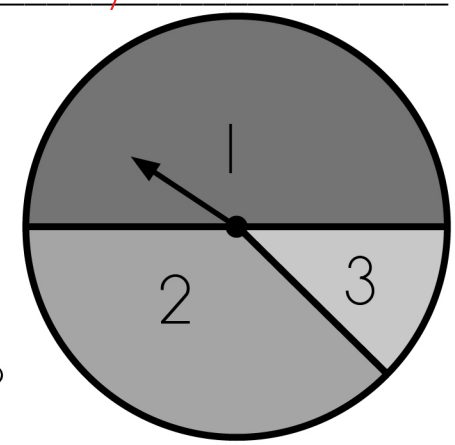
If you pull out a piece of candy, what colour are you most likely to pull out of the bag? Why?

Pink because there are more pink than any other color.

If you pull out a piece of candy, what colour are you least likely to pull out of the bag? Why?

Blue because there are fewer blue than any other color.

Look at the spinner below and answer the questions. Write the answers on the lines below.



Is the spinner more likely to land on 1 or 2? Why?

1 because its space is the largest

Is the spinner more likely to land on 2 or 3? Why?

2 because its space is larger

Which number is the spinner least likely to land on? Why?

3 because its space is the smallest

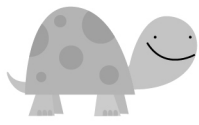
Data Management

Reading a Tally Mark Graph

A tally mark graph is a graph that uses tally marks to represent units. Counting the tallies and understanding what they represent is called analyzing the data.

Analyze the data and answer the questions. Write the answers on the lines below.

The Class Pet Debate

	Rabbit	𝍸 I
	Fish	II
	Guinea Pig	𝍸
	Turtle	𝍸 III

How many kids voted for the guinea pig? 5

How many kids voted for the fish? 2

How many kids voted for the rabbit? 6

How many kids voted for the turtle? 8

Which animal got the least number of votes? fish

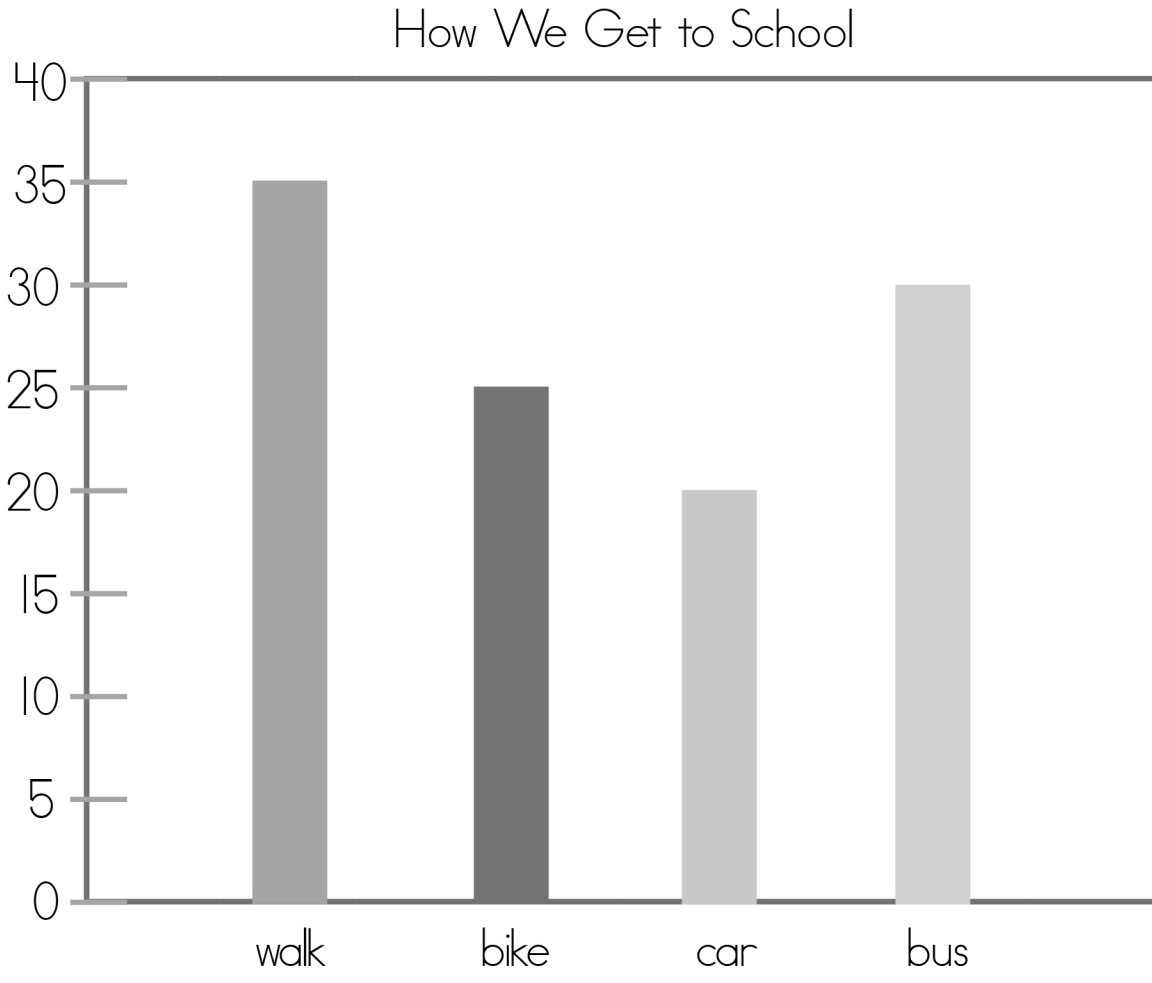
Which animal got the greatest number of votes? turtle

How many kids voted altogether? 21

Data Management

Reading a Bar Graph

Reading a bar graph means counting the numbers each bar represents and analyzing the data. Look at the bar graph and answer the questions. Write the answers on the lines below.



How many students walk to school? 35

How many students ride their bikes to school? 25

Do more students take the bus or ride in a car? bus

How many students altogether either walk or ride their bikes? 60

What is the most popular way to get to school? walking

What is the least popular way to get to school? riding in a car

Data Management

Making a Bar Graph

Use the tally graph data to make a bar graph. Then answer the questions. Write the answers on the lines below.

jumping rope	𝍸
playing sports	𝍸 𝍸 |
reading a book	|||
talking with friends	𝍸 |
swinging	||||

How many kids liked jumping rope at recess? 5

How many kids liked reading a book? 3

What activity was the most popular? playing sports

What activity was the least popular? reading a book

How many kids voted altogether? 29

Summary of Concepts

Expanded Form and Word Problems

Write the numbers in expanded form using numbers on the lines below.

5,379 = 5000 + 300 + 70 + 9

2,244 = 2000 + 200 + 40 + 4

6,738 = 6000 + 700 + 30 + 8

Write the numbers in expanded form using words on the lines below.

9,831 = nine thousand + eight hundred + thirty + one

3,274 = three thousand + two hundred + seventy + four

2,361 = two thousand + three hundred + sixty + one

Solve the word problems. Write the answers on the lines below.

Amber has 40 canoes. She has rented 13 of them to a group of vacationers. How many canoes are left?

40 - 13 = 27

Ezra is picking apples from the orchard. He has picked 62 red ones and 18 green ones. How many apples does he have altogether?

62 + 18 = 80

Camille eats 156 bunches of grapes. Then she eats 215 more. How many grapes did she eat in all?

156 + 215 = 371

Amelia has 228 recycling boxes. She takes 119 to the recycling center. How many boxes does Amelia have left?

228 - 119 = 109

Summary of Concepts

Multiplication and Division

Solve the multiplication problems. Write the answers on the lines below.

3 x 6 = 18	2 x 7 = 14	0 x 10 = 0
4 x 2 = 8	5 x 6 = 30	5 x 2 = 10
3 x 7 = 21	8 x 2 = 16	3 x 3 = 9
9 x 1 = 9	10 x 4 = 40	7 x 1 = 7

Solve the word problems. Write the answers on the lines below.

Eli owns 6 pairs of sunglasses. Emily owns 2 times that amount. How many sunglasses does Emily own?

6 x 2 = 12

Andy bought 5 boxes of oranges. Each box has 6 oranges in it. How many oranges does Andy have?

5 x 6 = 30

Maya has 8 scoops of ice cream to go onto 4 ice-cream cones. How many scoops of ice cream go on each cone?

8 ÷ 4 = 2

Henry has 16 cookies on a plate. He wants to share equally with 4 friends. How many cookies does each friend get?

16 ÷ 4 = 4

CERTIFICATE
of Achievement

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has successfully completed

Grade 3 Math Readiness

Date

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Parent's Signature

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