بِسۡمِ اللّٰہِ الرَّحۡمٰنِ الرَّحِیۡمِ

MATHEMATICS

for

Class 2

PUNJAB CURRICULUM AND
TEXTBOOK BOARD, LAHORE

Contents

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Counting

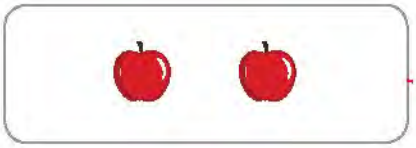
Haris is counting things in his classroom.

Let's count with him.

	1	One
	2	Two
	3	Three
	4	Four
	5	Five
	6	Six
	7	Seven
	8	Eight
	9	Nine

There is no tractor in the classroom.
We can say there are 0 tractors.

Match the object with the correct number.



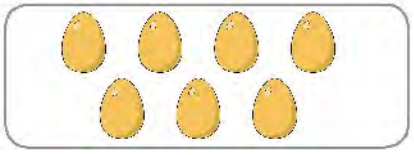
6

2

4

0

Count the objects and write the correct number.



5 _____

_____

_____

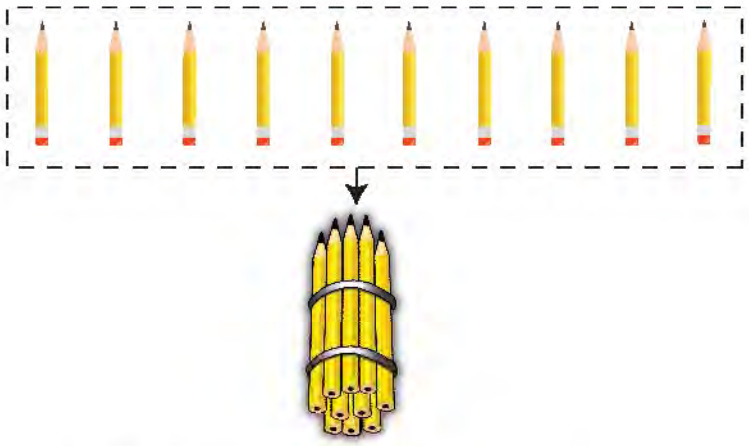
_____

Place Value

Haris counted 9 pencils.
Sana found 1 more pencil.

How many pencils do they have now?

When we have 9 + 1 objects, we group them together to form a bundle.



A single pencil represents a one.
A bundle of pencils represents a ten.

 = 1 one

 = 1 ten

We have 1 bundle and no other pencils. This means we have 1 ten and 0 ones.

	Tens	Ones
	1	0

Sana finds 1 more pencil. There is 1 bundle and 1 pencil now. This means there is 1 ten and 1 one.

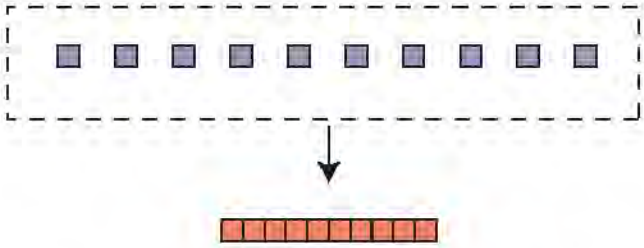
	Tens	Ones
	1	1

Count the number of bundles and pencils. Write tens and ones.

	Tens	Ones
	2	2
		
		
		
		

Haris has 10 blocks.

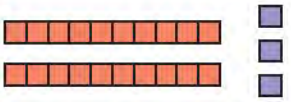
He combines these blocks to make a ten.



We can use blocks to learn tens and ones.

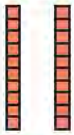
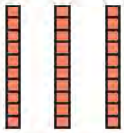
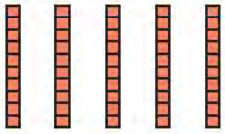
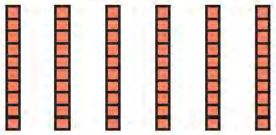
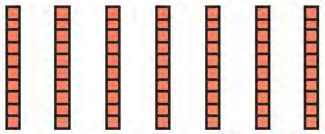
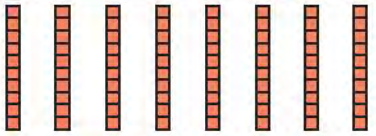
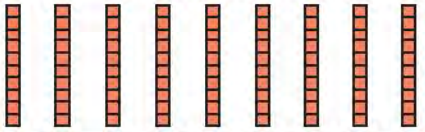
	1 block	=	1 one
	1 group of ten blocks	=	1 ten

Count the blocks. Write tens and ones.

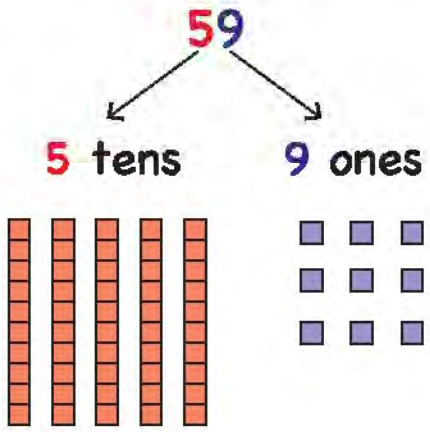
	Tens	Ones
	2	3
		
		
		

Haris and Sana have made groups of tens with their blocks.

Count the blocks and read the number.

	10	ten
	20	twenty
	30	thirty
	40	forty
	50	fifty
	60	sixty
	70	seventy
	80	eighty
	90	ninety

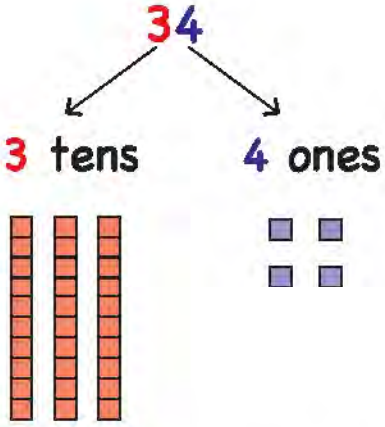
Look at the number. Count tens and ones.



There are 5 tens. They represent 50 blocks.
There are 9 ones. They represent 9 blocks.

59 = 5 tens 9 ones

59 = 50 + 9



There are 3 tens. They represent 30 blocks.
There are 4 ones. They represent 4 blocks.

34 = 3 tens 4 ones

34 = 30 + 4

Write the number of tens and ones.

23 = 2 tens 3 ones

45 = _____ tens _____ ones

62 = _____ tens _____ ones

87 = _____ tens _____ ones

43 = _____ tens _____ ones

Write tens and ones.

56 = 50 + 6

31 = _____ + _____

95 = _____ + _____

20 = _____ + _____

18 = _____ + _____

Numbers in words

Read numbers from 10 to 29.

Family of 10		Family of 20	
Ten	10	Twenty	20
Eleven	11	Twenty one	21
Twelve	12	Twenty two	22
Thirteen	13	Twenty three	23
Fourteen	14	Twenty four	24
Fifteen	15	Twenty five	25
Sixteen	16	Twenty six	26
Seventeen	17	Twenty seven	27
Eighteen	18	Twenty eight	28
Nineteen	19	Twenty nine	29

Match the word with the correct number.

Twenty two	15
Thirteen	22
Fifteen	13

Read numbers from 30 to 49.

Family of 30		Family of 40	
Thirty	30	Forty	40
Thirty one	31	Forty one	41
Thirty two	32	Forty two	42
Thirty three	33	Forty three	43
Thirty four	34	Forty four	44
Thirty five	35	Forty five	45
Thirty six	36	Forty six	46
Thirty seven	37	Forty seven	47
Thirty eight	38	Forty eight	48
Thirty nine	39	Forty nine	49

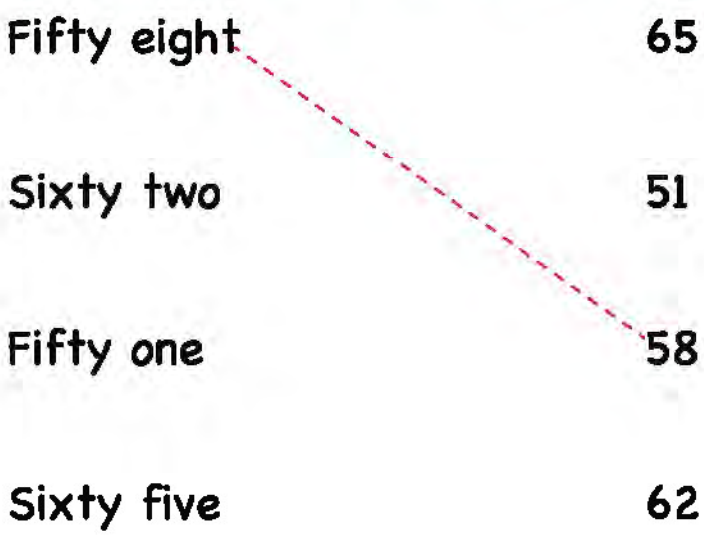
Match the word with the correct number.

Thirty nine	49
Thirty three	39
Forty six	33
Forty nine	46

Read numbers from 50 to 69.

Family of 50		Family of 60	
Fifty	50	Sixty	60
Fifty one	51	Sixty one	61
Fifty two	52	Sixty two	62
Fifty three	53	Sixty three	63
Fifty four	54	Sixty four	64
Fifty five	55	Sixty five	65
Fifty six	56	Sixty six	66
Fifty seven	57	Sixty seven	67
Fifty eight	58	Sixty eight	68
Fifty nine	59	Sixty nine	69

Match the word with the correct number.



Read numbers from 70 to 89.

Family of 70		Family of 80	
Seventy	70	Eighty	80
Seventy one	71	Eighty one	81
Seventy two	72	Eighty two	82
Seventy three	73	Eighty three	83
Seventy four	74	Eighty four	84
Seventy five	75	Eighty five	85
Seventy six	76	Eighty six	86
Seventy seven	77	Eighty seven	87
Seventy eight	78	Eighty eight	88
Seventy nine	79	Eighty nine	89

Read the word and write the number.

Seventy two 72

Eighty four _____

Seventy six _____

Eighty _____

Read numbers from 90 to 99.

Family of 90			
Ninety	90	Ninety five	95
Ninety one	91	Ninety six	96
Ninety two	92	Ninety seven	97
Ninety three	93	Ninety eight	98
Ninety four	94	Ninety nine	99

Read the word and write the number.

93 Ninety three

97 _____

99 _____

90 _____

95 _____

91 _____

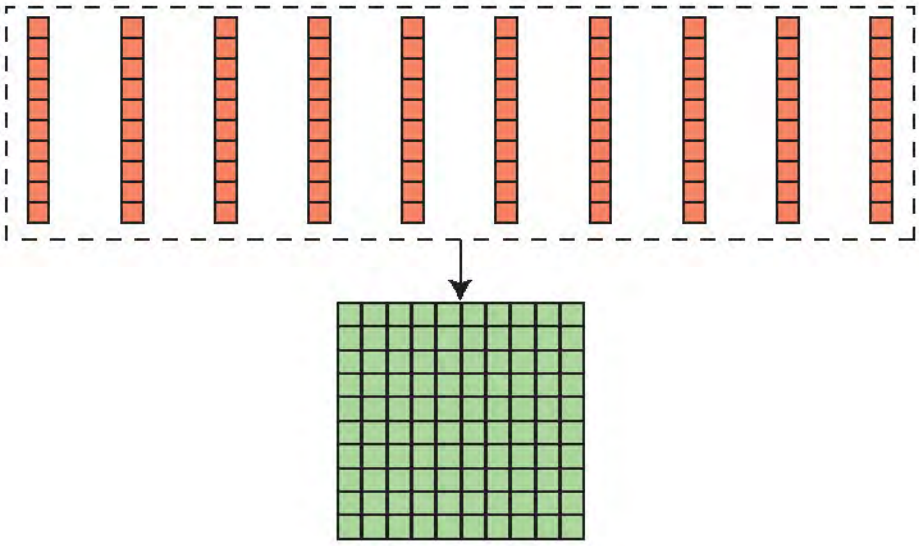
Hundred, Tens & Ones

Hamza has 10 blocks of ten.

He joins them together.

10 blocks of ten joined together make a hundred.

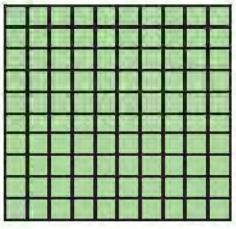
10 blocks of ten = 1 hundred



One block = 1 one

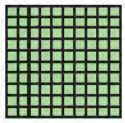
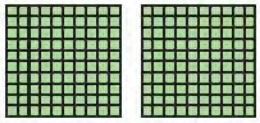
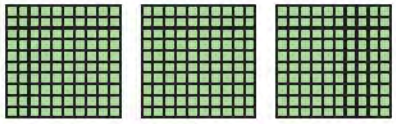
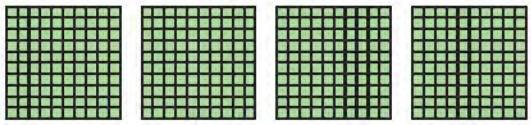
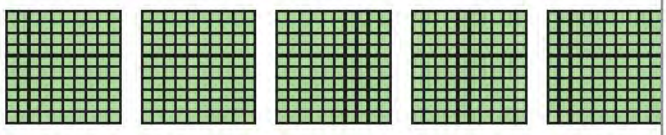
Set of 10 blocks = 1 ten

Set of 10 tens = 1 hundred

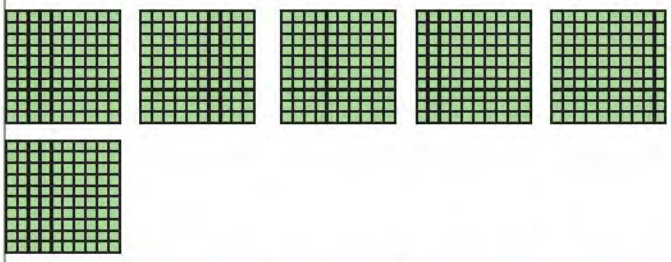
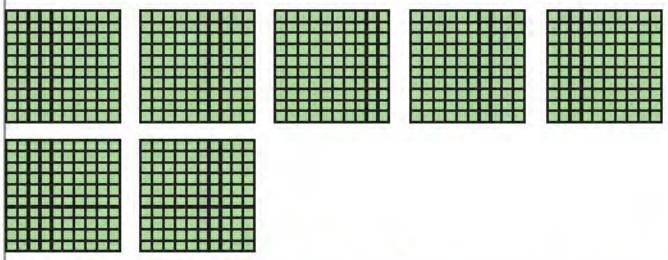
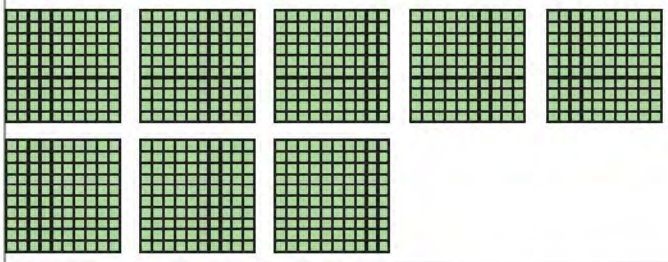
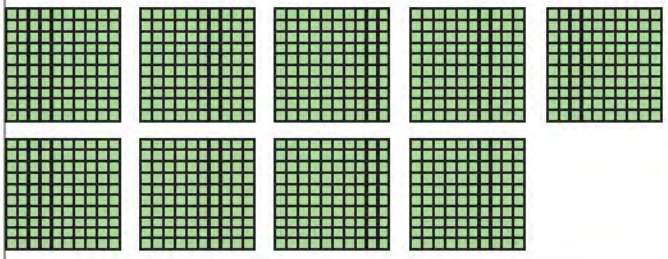
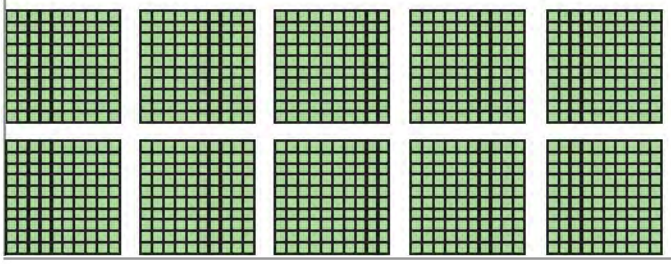


Numbers till 1000

Count and write hundreds, tens and ones.

	Hundreds	Tens	Ones
	1	0	0
			
			
			
			

Count and write hundreds, tens and ones.

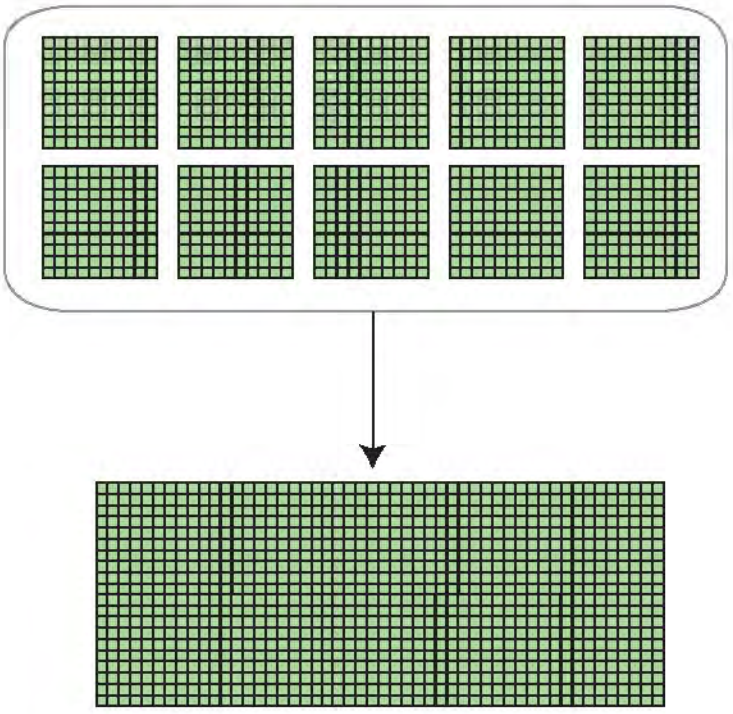
	Hundreds	Tens	Ones
			
			
			
			
			

Did you notice? There were 10 hundreds in the last row.

What happens when we have 10 hundreds?

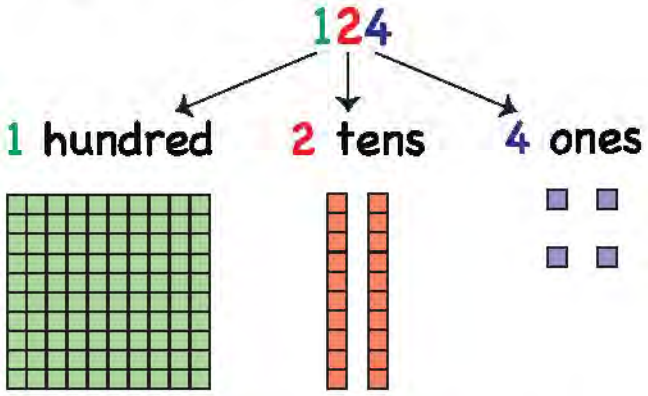
We join them to form one big block.

This big block represents 1 thousand.



10 hundreds = 1 thousand
100 is the smallest **3-digit** number
1000 is the smallest **4-digit** number

Look at the given example.



124 = 1 hundred 2 tens 4 ones

Read the number. Write hundreds, tens and ones.

354 = 3 hundreds 5 tens 4 ones

247 = ____ hundreds ____ tens ____ ones

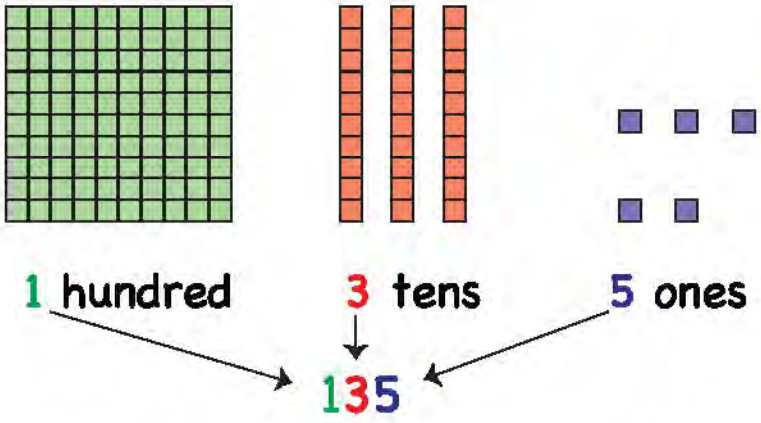
536 = ____ hundreds ____ tens ____ ones

260 = ____ hundreds ____ tens ____ ones

680 = ____ hundreds ____ tens ____ ones

473 = ____ hundreds ____ tens ____ ones

Look at the given example.



1 hundred 3 tens 5 ones = 135

Read hundreds, tens and ones. Write the number.

8 hundreds 5 tens 3 ones = 853

7 hundreds 6 tens 1 one = _____

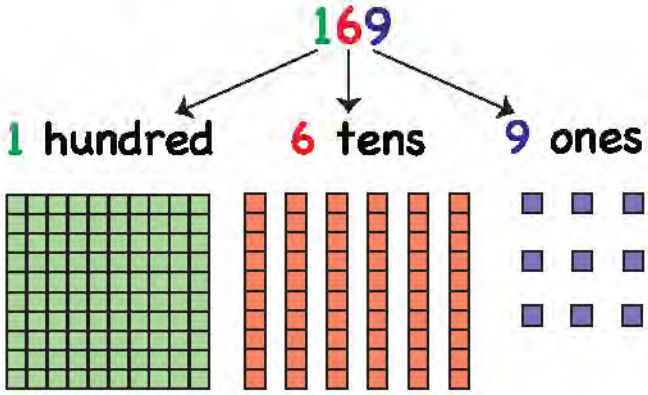
3 hundreds 1 tens 7 ones = _____

8 hundreds 4 tens 2 ones = _____

9 hundreds 2 tens 5 ones = _____

6 hundreds 2 tens 9 ones = _____

Look at the given number.



There is 1 hundred. It represents 100 blocks.
There are 6 tens. They represent 60 blocks.
There are 9 ones. They represent 9 blocks.

$$169 = 100 + 60 + 9$$

For the following numbers, write hundreds, tens and ones.

526 = 500 + 20 + 6

319 = _____ + _____ + _____

953 = _____ + _____ + _____

278 = _____ + _____ + _____

862 = _____ + _____ + _____

Missing numbers

Read the number sequence from 100-199

100	110	120	130	140	150	160	170	180	190
101	111	121	131	141	151	161	171	181	191
102	112	122	132	142	152	162	172	182	192
103	113	123	133	143	153	163	173	183	193
104	114	124	134	144	154	164	174	184	194
105	115	125	135	145	155	165	175	185	195
106	116	126	136	146	156	166	176	186	196
107	117	127	137	147	157	167	177	187	197
108	118	128	138	148	158	168	178	188	198
109	119	129	139	149	159	169	179	189	199

Use the chart and circle the number that comes:

just after 121 just before 180 at the end

Complete the sequence.

141, 142, 143, _____, _____, _____

171, _____, _____, 174, _____, _____

150, 151, _____, _____, 154, _____

192, 193, _____, _____, 196, _____

Complete the number sequence from 200-299

200	210	220	230	240	250	260	270	280	290
201	211								
202					252				
203									
204									
205									
206			236						
207							277		
208									
209									299

The sequence of numbers after 100 remains the same.
999 is the **greatest 3-digit number.**

Complete the sequence.

450 to 479		
450	460	470
453		
	466	
		478

300 to 329		
300	310	320
302		
	314	
		327

Complete the sequence.

510, 511, 512, _____, _____, _____, _____

430, 431, _____, _____, 434, _____, _____

638, _____, 640, _____, _____, _____, _____

898, 899, _____, _____, 902, _____, _____

950, 951, _____, _____, _____, _____, 956

Look at the numbers given below.

Which number comes between 100 and 102?

Which number comes between 549 and 551?

Which number comes just after 899?

Which number is less than 100?

Which number comes just before 211?

Write the number that comes before each number.

_____ 22 _____ 13 _____ 69

_____ 450 _____ 600 _____ 378

_____ 125 _____ 201 _____ 346

Write the number that comes after each number.

45 _____ 56 _____ 99 _____

98 _____ 479 _____ 562 _____

285 _____ 970 _____ 682 _____

Write the number that comes between the given numbers.

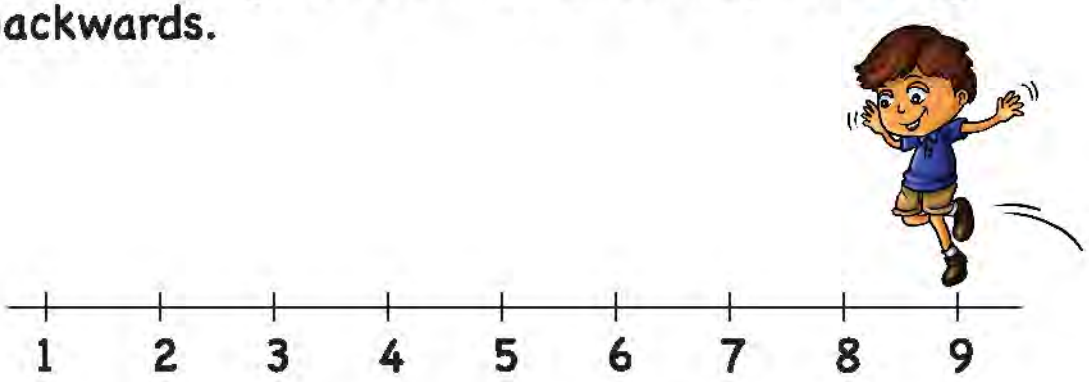
41 _____ 43 17 _____ 19

199 _____ 201 376 _____ 378

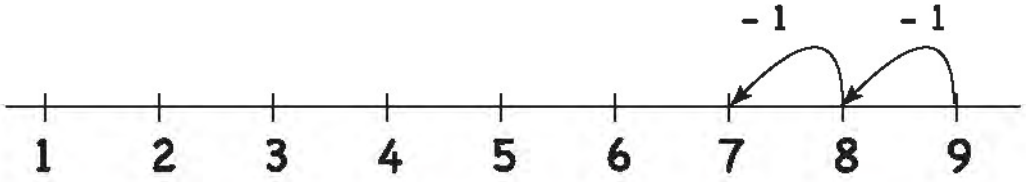
881 _____ 883 53 _____ 55

Counting Backwards

Ali is jumping on the number line by counting backwards.



Ali starts from 9.
He counts back 1 and jumps to 8.
He then counts back 1 more and jumps to 7.



Count backwards and complete the given sequences.

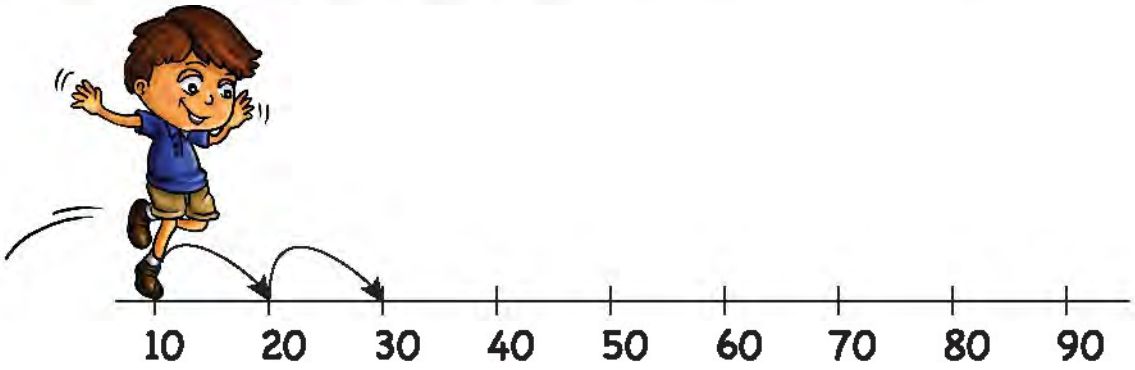
8	7	6	5	____	____
9	8	____	____	5	____
6	____	4	3	____	____
7	6	____	____	3	____

Count backwards and complete the given sequences.

56	55	54	____	52
20	19	____	____	16
45	____	____	42	____
70	____	____	67	____
80	____	____	77	____
564	563	____	____	____
199	198	____	____	195
400	____	398	____	396
173	172	____	____	____
529	____	____	____	525
382	381	____	379	____

Skip Counting by 10

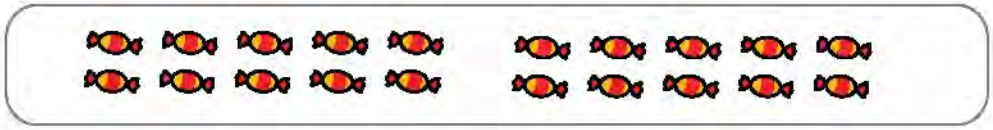
Ali skips over 10 steps to go to 20, then another 10 steps to go to 30.



This is called **skip counting by 10s**.

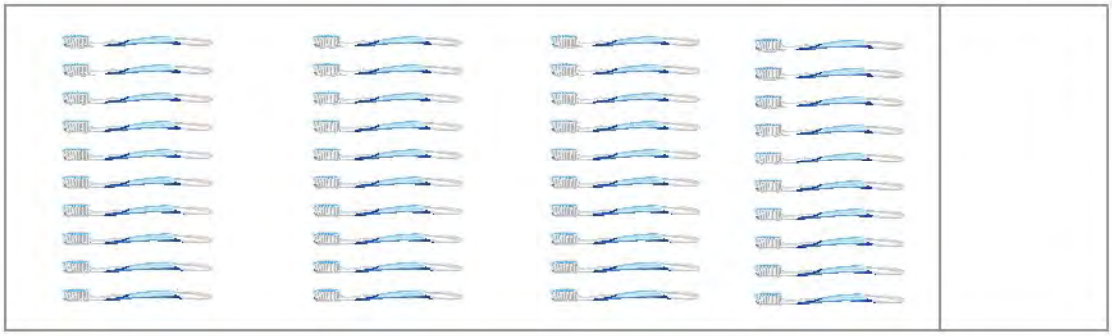
We can count quickly by making sets of 10.

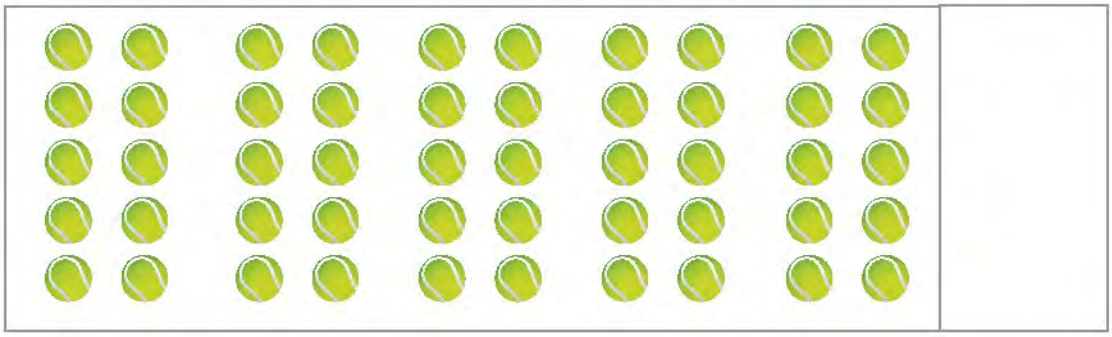
There are 3 sets of ten. This means there are 30 stars.

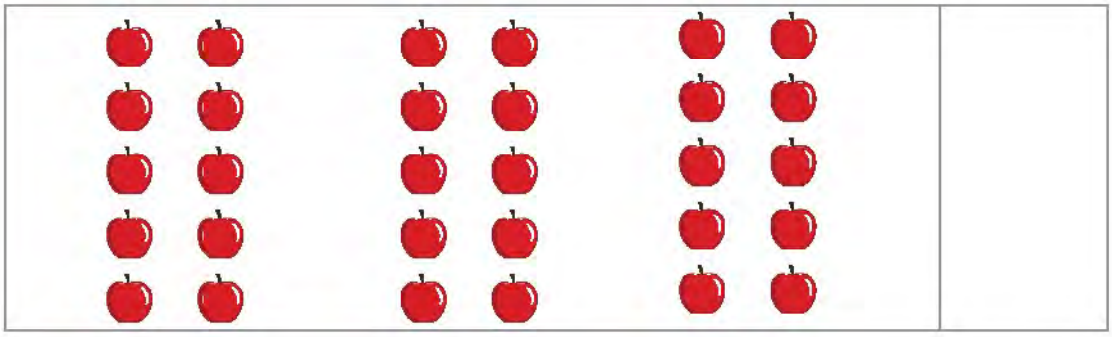


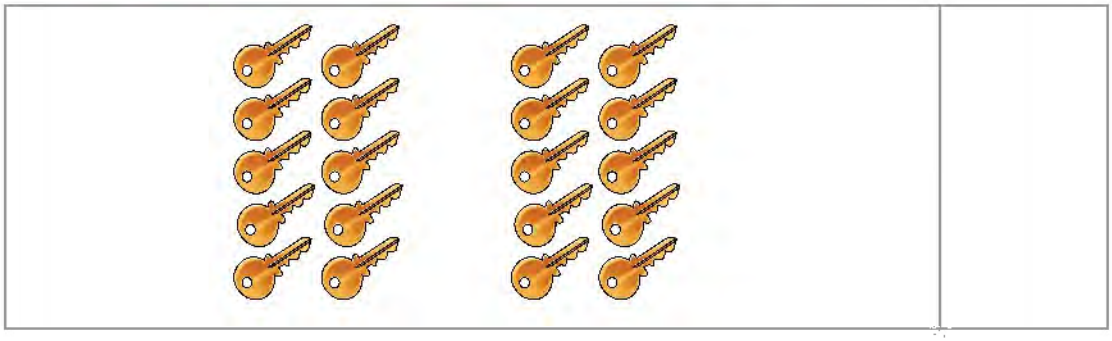
There are 2 sets of ten. This means there are 20 sweets.

Count in 10s and write the number.









Skip Counting by 100

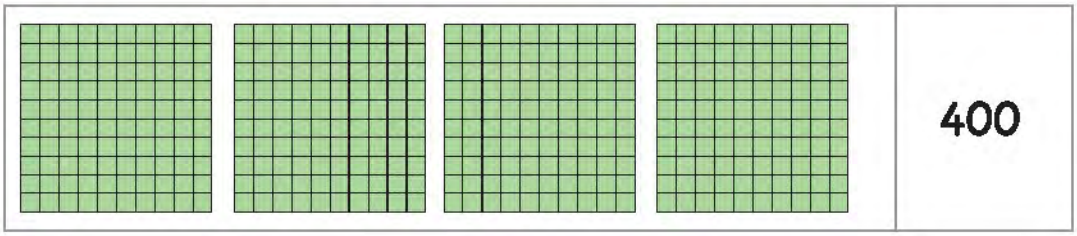
We can also count quickly by skipping in 100s.

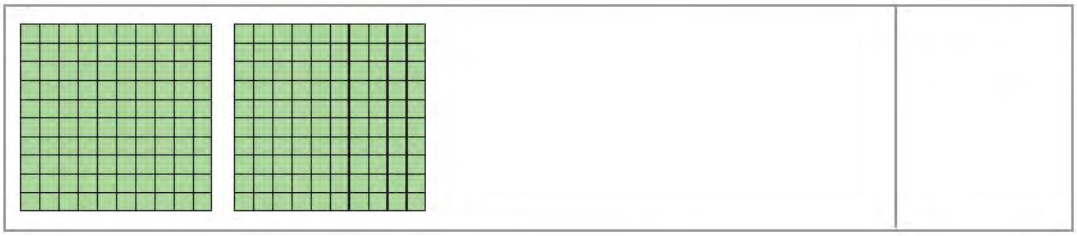
10	20	30	40	50	60	70	80	90	100
110	120	130	140	150	160	170	180	190	200
210	220	230	240	250	260	270	280	290	300
310	320	330	340	350	360	370	380	390	400
410	420	430	440	450	460	470	480	490	500
510	520	530	540	550	560	570	580	590	600
610	620	630	640	650	660	670	680	690	700
710	720	730	740	750	760	770	780	790	800
810	820	830	840	850	860	870	880	890	900
910	920	930	940	950	960	970	980	990	1000

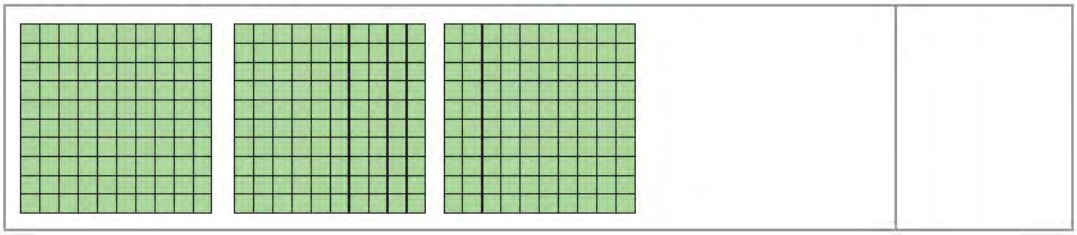
There are 5 notes of Rs. 100.

Count in 100s. There are Rs. 500 in total.

Count in 100s and write the total number of blocks.







Count in 100s and complete the sequence.

100, 200, 300, _____, _____

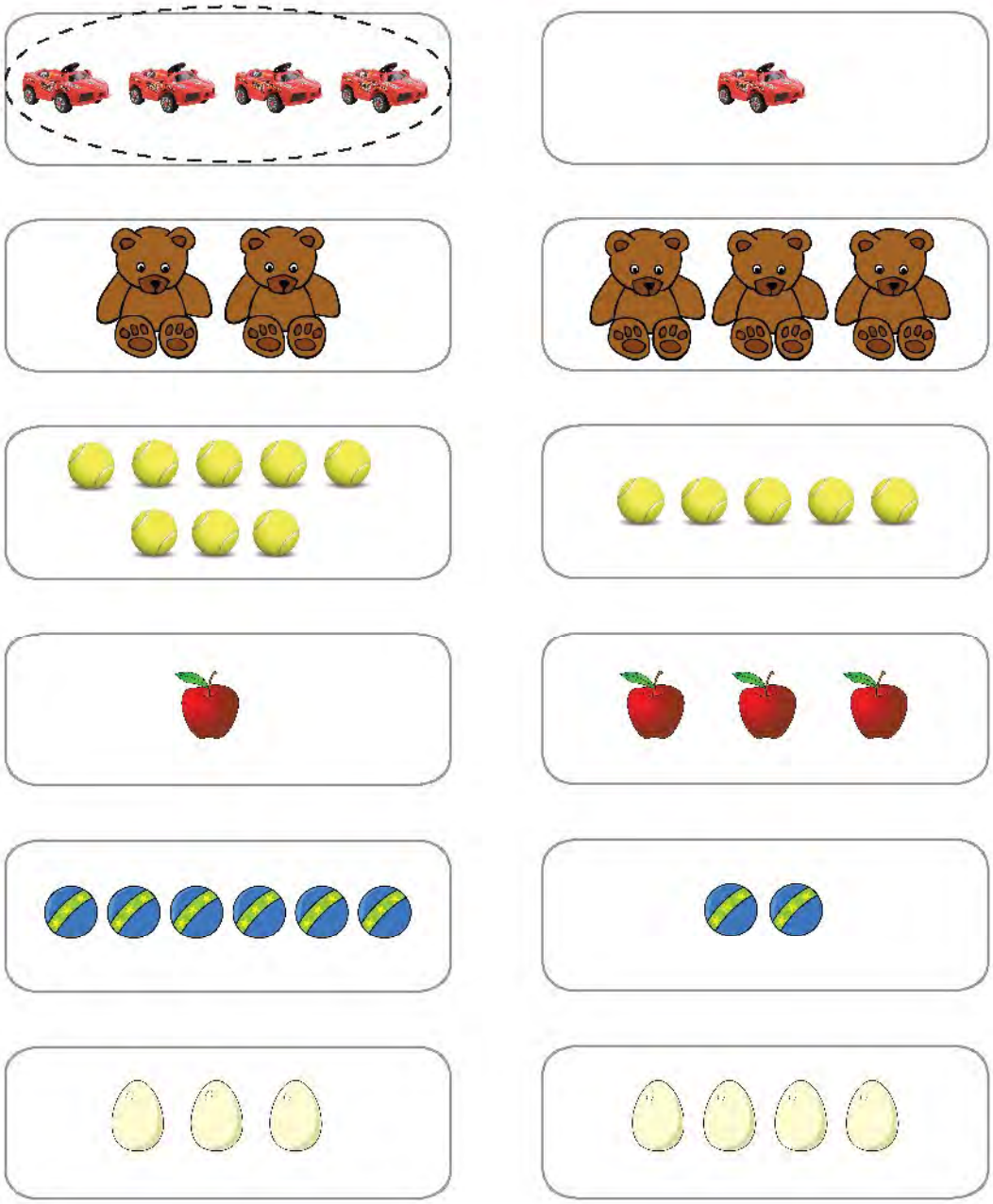
400, 500, _____, 700, _____

600, 700, _____, _____

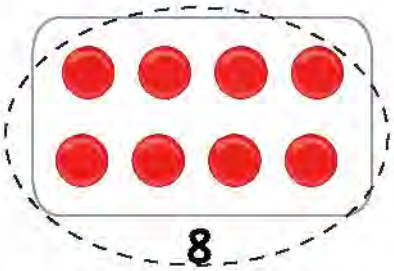
300, _____, _____, 600

Comparing Numbers

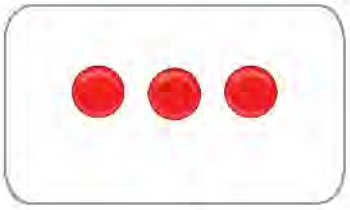
Encircle the box with the greater number of objects.



Anum has 8 balls. Ali has 3 balls. Who has more balls?



8



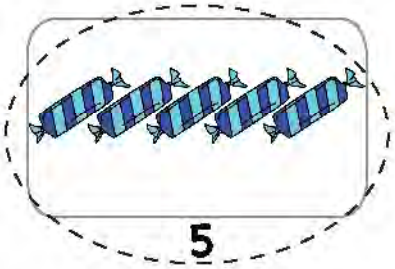
3

8 is bigger than 3 so Anum has more balls.

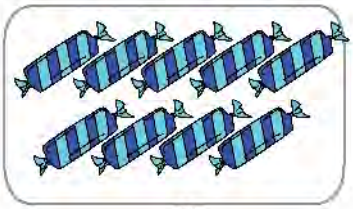
Encircle the bigger number.

8 5	9 3	2 7
4 3	6 8	9 5
6 3	2 5	4 1
7 4	3 8	7 9
6 5	0 4	1 0

Ali has 5 sweets. Anum has 9 sweets. Who has less sweets?



5



9

5 is smaller than 9 so Ali has less sweets.

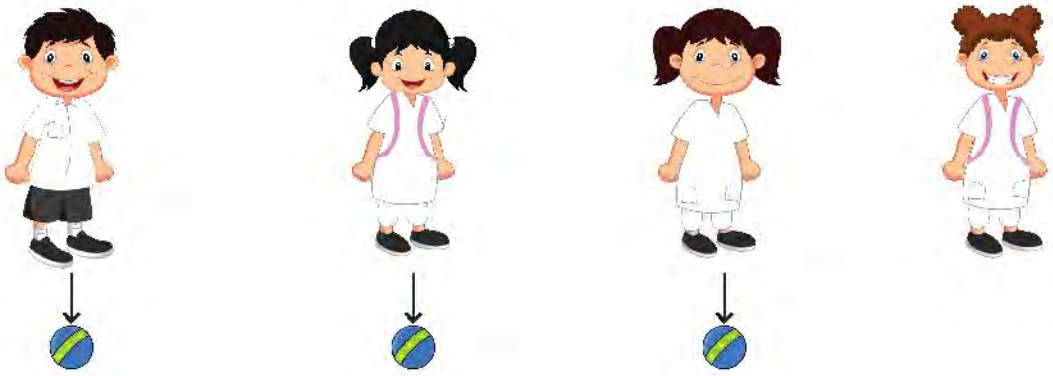
Encircle the smaller number.

4 7	3 2	9 2
1 5	4 3	0 3
8 3	6 4	4 9
0 6	4 5	8 9
1 7	5 8	8 4

Let's look at some other examples.

There are 3 children.

There are 3 balls.

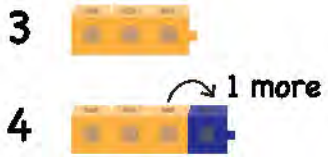


There are 4 children.

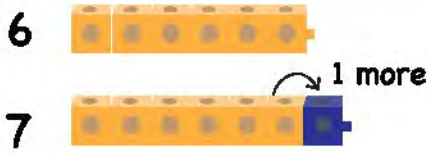
There are 3 balls.

The number of children is **more** than the number of balls.

Look at this example.



4 is 1 more than 3



7 is 1 more than 6

1 What is 1 more than 5?

___6___ is 1 more than 5.

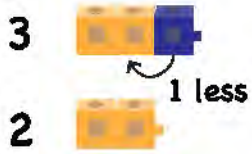
2 What is 1 more than 4?

_____ is 1 more than 4.

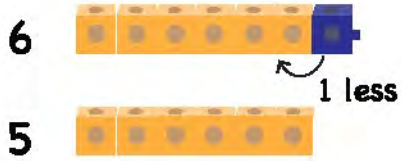
3 What is 1 more than 8?

_____ is 1 more than 8.

Look at this example.



2 is 1 **less** than 3

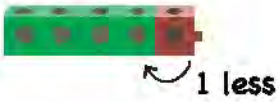


5 is 1 **less** than 6

1 What is 1 less than 4?

__3__ is 1 less than 4.

2 What is 1 less than 5?



_____ is 1 less than 5.

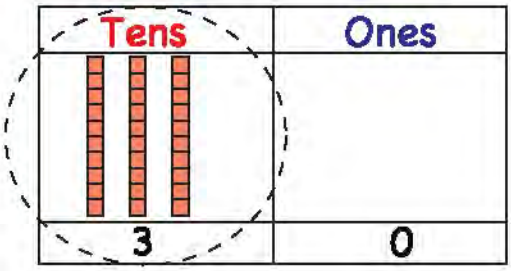
3 What is 1 less than 7?

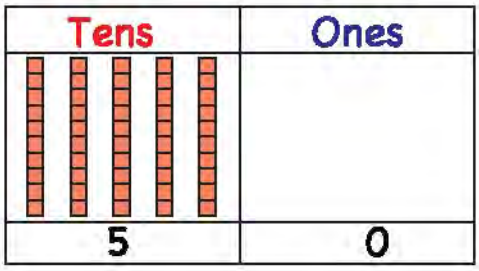
_____ is 1 less than 7.

Which is the smaller number?

30 50

Step 1 Compare tens.





3 tens are less than 5 tens.
30 is the smaller number.

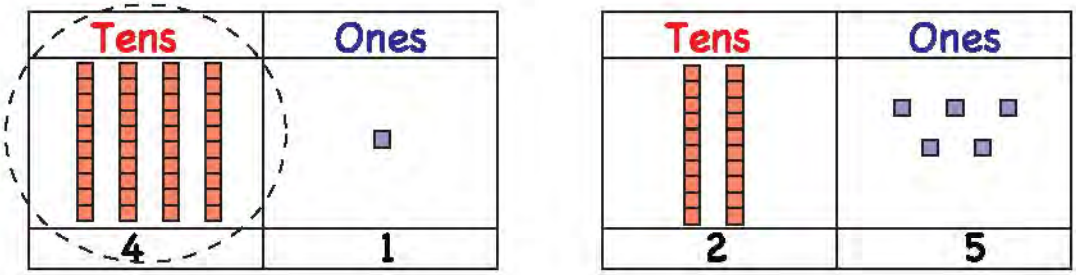
Encircle the smaller number.

20 70	40 30	60 80
50 30	90 80	40 60
30 80	10 80	90 50
60 20	70 50	90 10

Which is the bigger number?

41 25

Step 1 Compare tens.



4 tens are more than 2 tens.
41 is the bigger number.

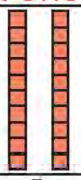
Encircle the bigger number.

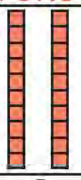
10 50	35 18	42 27
63 94	47 32	53 64
32 43	16 26	28 92
54 31	12 29	21 65

Which is the bigger number?

24	27

Step 1 Compare tens.

Tens	Ones
	
2	4

Tens	Ones
	
2	7

The tens are the same.

Step 2 Compare ones.

7 ones are more than 4 ones.
27 is the bigger number.

Encircle the bigger number.

49	86	25	81	93	98
18	10	27	34	65	62
19	30	44	64	78	76

Which is the bigger number?

100 300

Step 1 Compare hundreds.

Hundreds	Tens	Ones
1	0	0

Hundreds	Tens	Ones
3	0	0

3 hundreds are more than 1 hundred.
300 is the bigger number.

Which is the bigger number?

230 150

Step 1 Compare hundreds.

Hundreds	Tens	Ones
2	3	0

Hundreds	Tens	Ones
1	5	0

2 hundreds are more than 1 hundred.
230 is the bigger number.

Note:
3 tens are less than 5 tens.
230 is larger because we start by comparing hundreds

Encircle the bigger number.

500 **700**	200 300	600 100
850 793	284 690	376 510
283 561	920 340	800 380
650 710	461 290	400 640
392 600	548 861	350 280
875 410	834 675	780 190
341 900	863 541	400 381

Which is the smaller number?

340 320

Step 1 Compare hundreds.

The hundreds are the same.

Hundreds	Tens	Ones
3	4	0

Step 2 Compare tens.

Hundreds	Tens	Ones
3	2	0

2 tens are less than 4 tens.
320 is the smaller number.

Which is the smaller number?

729 723

Step 1 Compare hundreds.

The hundreds are the same.

Hundreds	Tens	Ones
7	2	9

Step 2 Compare tens.

The tens are also same.

Hundreds	Tens	Ones
7	2	3

Step 3 Compare ones.

3 ones are less than 9 ones.
723 is the smaller number.

Encircle the smaller number.

387 **362**	412 459	542 547
680 627	436 483	201 208
670 675	987 971	465 432
549 590	816 807	918 927
675 601	300 386	750 792
612 261	187 182	403 423
536 522	207 218	380 381

Which is the biggest number?

6 5 8

8 is the biggest number.

Which is the biggest number?

57 36 45

Step 1 Compare tens.

5 tens are more than 3 tens and 4 tens.
57 is the biggest number.

Tens	Ones
5	7
3	6
4	5

Encircle the biggest number.

66 34 21

78 24 90

31 18 54

65 12 39

43 56 92

23 74 45

Which is the smallest number?

18 12 15

Step 1 Compare tens.
The tens are the same.

Tens	Ones
1	8
1	2
1	5

Step 2 Compare ones.
2 ones are less than 8 ones and 5 ones.
12 is the smallest number.

Encircle the smallest number.

4 8 9

3 5 1

13 38 94

66 86 56

39 15 48

50 24 10

36 49 58

48 23 58

18 27 33

40 42 38

Ascending and Descending Order

Arrange these numbers from the smallest to the biggest.

20 50 10

Step 1 Encircle the smallest number.

20 50 (10)

Step 2 Encircle the biggest number.

20 (50) 10

Step 3 Write the smallest number first and the biggest number at the end.

10 20 50

smallest ⟶ biggest

Arrange the given numbers from the smallest to the biggest.

5	3	8	3	5	8
36	74	43			
15	89	12			
38	43	16			

Arrange these numbers from the biggest to the smallest.

47 53 18

Step 1 Encircle the smallest number.

47 53 (18)

Step 2 Encircle the biggest number.

47 (53) 18

Step 3 Write the biggest number first and the smallest number at the end.

53 47 18

biggest → smallest

Arrange the given numbers from the biggest to the smallest.

6	4	9	9	6	4
43	55	82			
61	78	97			
56	85	26			
18	34	58			

Arrange these numbers from the smallest to the biggest.

241 160 396

Step 1 Encircle the smallest number.

241 (160) 396

Step 2 Encircle the biggest number.

241 160 (396)

Step 3 Write the smallest number first and the biggest number at the end.

160 241 396

smallest ⟶ biggest

Arrange the numbers from the smallest to the biggest.

115	866	230	115	230	866
481	500	360			
790	860	120			
221	873	120			
700	650	547			

Arrange these numbers from the biggest to the smallest.

472	800	915

Step 1 Encircle the smallest number.

472 800 915

Step 2 Encircle the biggest number.

472 800 915

Step 3 Write the biggest number first and the smallest number at the end.

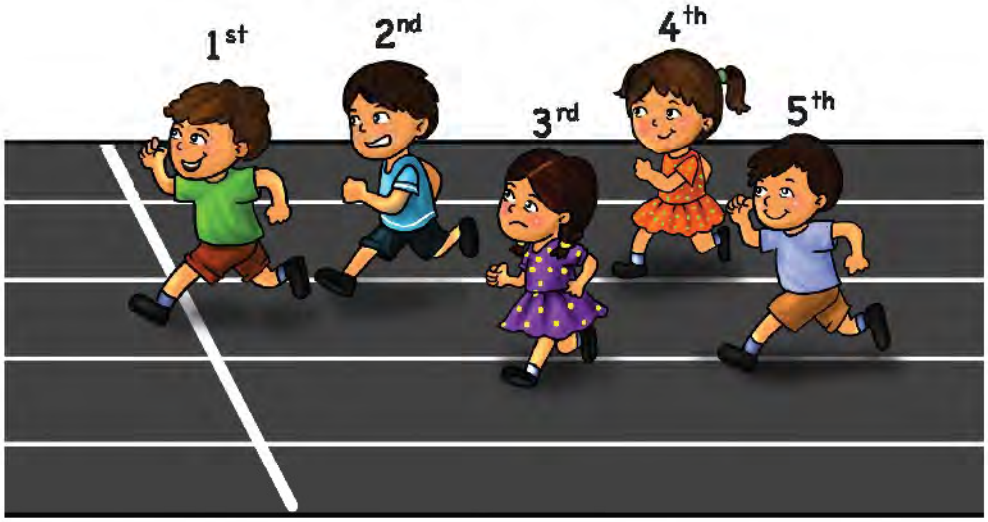
915 800 472

biggest ⟶ smallest

Arrange the numbers from the biggest to the smallest.

261	345	800	800	345	261
552	128	470			
389	965	890			
745	630	905			
208	431	580			

Ordinal Numbers



1st, 2nd, 3rd are called **ordinal numbers.**

Ordinal numbers tell us the **position** of the object.

We can also write them as **first, second, third.**

Look at the things on the table.

Start from left.

1st Bag 2nd Football 3rd Pencil box

Class 2 students are standing in the assembly.
Their names and positions are given.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Nazia	Ahmed	Anum	Arif	Anwar	Sana	Amna	Ali	Haris	Bilal

What are the positions of these children?

Nazia _____ Anum _____ Ali _____ Bilal _____

Look at the positions and write the names of the children.

2nd _____

4th _____

5th _____

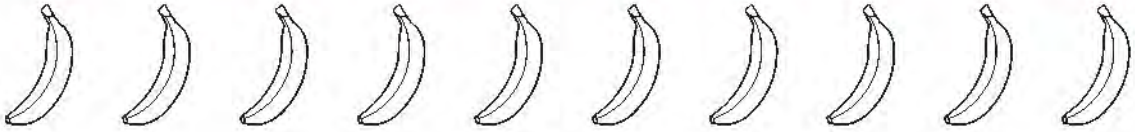
6th _____

8th _____

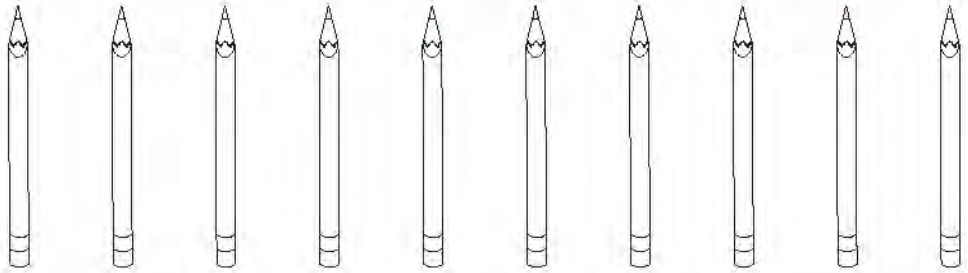
Ordinal Numbers

Start from left. Colour the 1st, 3rd, and 7th apple.

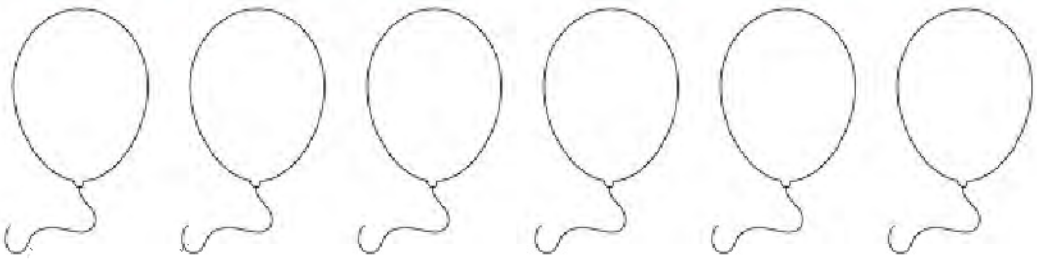
Start from left. Colour the 2nd, 4th, and 8th banana.



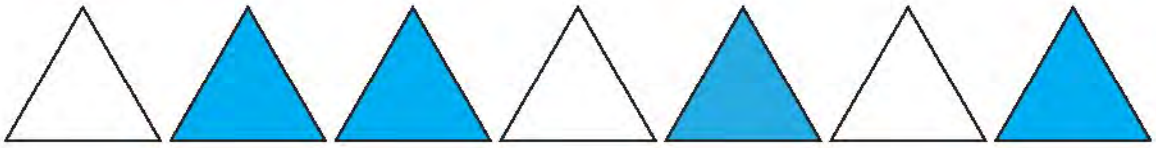
Start from left. Colour the 5th, 6th, and 9th pencil.



Start from left. Colour the 1st, 3rd, and 5th balloon.

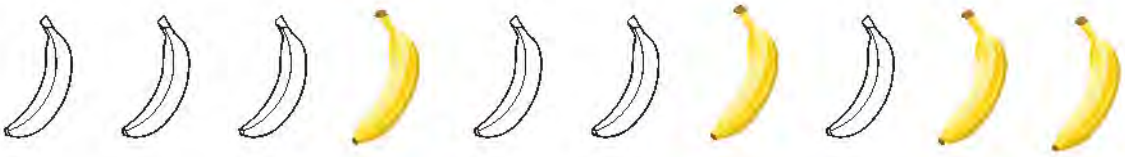


Start from left. Write the ordinal position of blue triangles.



2nd _____ _____ _____

Start from left. Write the ordinal position of yellow bananas.



4th _____ _____ _____

Look at the picture.

Start from left and fill in the blank.

1st _____ 2nd _____ 3rd _____

Addition

Ahmed and Zara are playing with toys. They want to know the total number of toys.

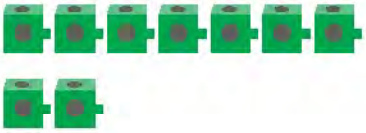
Can you help them to add the toys?

5 + 1 = _____

_____

7 + 2 = _____

_____



3 + 4 = _____

_____

4 + 1 = _____

_____

3 + 2 = _____

_____

2 + 2 = _____

_____

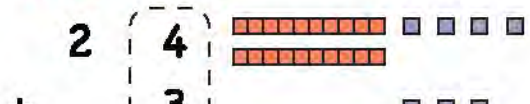
Addition of tens and ones

Find the sum of 24 and 3.

Tens	Ones
2	4
+	3

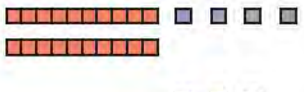
Step 1:
Add ones.

Tens	Ones
2	4
+	3
	7



Step 2:
Add tens.

Tens	Ones
2	4
+	3
2	7



Find the sum of 27 and 12.

Tens	Ones
2	7
+ 1	2
3	9

Add the following numbers.

Tens	Ones
3	7
+	2

Tens	Ones
6	1
+	5

Tens	Ones
8	3
+	2

Tens	Ones
2	3
+	4

Tens	Ones
1	2
+	7

Tens	Ones
4	3
+	2

Tens	Ones
1	5
+	3

Tens	Ones
3	2
+	4

Tens	Ones
1	6
+	2

Tens	Ones
5	3
+	4

Tens	Ones
7	1
+	8

Tens	Ones
9	2
+	5

Add the following numbers.

Tens	Ones
2	3
+ 1	2

Tens	Ones
4	5
+ 2	4

Tens	Ones
5	7
+ 2	0

Tens	Ones
3	8
+ 5	0

Tens	Ones
3	4
+ 1	1

Tens	Ones
5	0
+ 3	1

Tens	Ones
4	3
+ 2	2

Tens	Ones
1	2
+ 6	3

Tens	Ones
3	2
+ 5	1

Tens	Ones
1	7
+ 3	2

Tens	Ones
7	5
+ 1	1

Tens	Ones
8	3
+ 1	2

Addition with carrying

Ahmed has 8 blocks. He finds 4 more under the table. How many blocks does he have now?

Step 1:
Add ones.

Tens Ones

$$\begin{array}{rr} & 8 \\ + & 4 \\ \hline 1 & 2 \end{array}$$

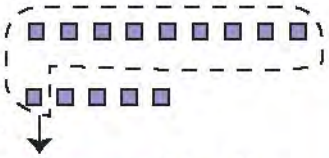
8 ones + 4 ones = 12 ones
12 ones = 1 ten 2 ones
Write 1 in the tens column and 2 in the ones column.

Find the sum of 9 and 5.

Step 1:
Add ones.

Tens Ones

$$\begin{array}{rr} & 9 \\ + & 5 \\ \hline 1 & 4 \end{array}$$



9 ones + 5 ones = 14 ones
14 ones = 1 ten 4 ones
Write 1 in the tens column and 4 in the ones column.

Add the following numbers.

Tens	Ones
	7
+	4

Tens	Ones
	1
+	9

Tens	Ones
	9
+	5

Tens	Ones
	6
+	7

Tens	Ones
	9
+	3

Tens	Ones
	9
+	2

Tens	Ones
	6
+	4

Tens	Ones
	6
+	8

Tens	Ones
	8
+	8

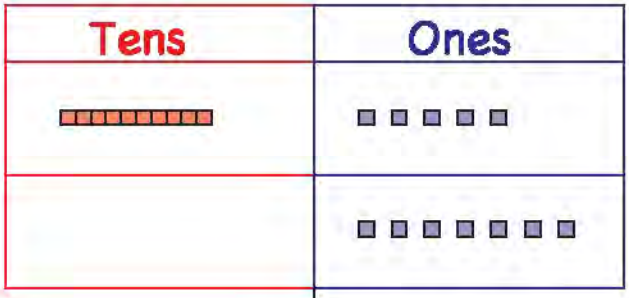
Tens	Ones
	6
+	5

Tens	Ones
	5
+	8

Tens	Ones
	7
+	8

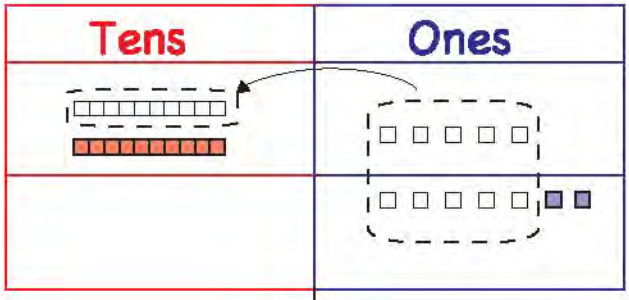
Find the sum of 15 and 7.

Tens	Ones
1	5
	7
+	



Step 1:
Add ones.

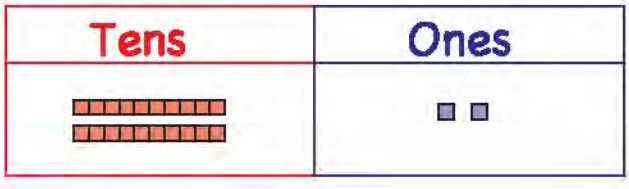
Tens	Ones
$^{1}1$	5
+	7
	2



5 ones + 7 ones = 12 ones
12 ones = 1 ten 2 ones
We will write 2 in the ones column and carry 1 to the tens side.

Step 2:
Add tens.

Tens	Ones
$^{1}1$	5
+	7
2	2



Add the following numbers.

Tens	Ones
4	3
+	9

Tens	Ones
3	7
+	6

Tens	Ones
5	9
+	2

Tens	Ones
7	5
+	6

Tens	Ones
8	4
+	9

Tens	Ones
2	6
+	8

Tens	Ones
2	6
+	4

Tens	Ones
5	3
+	7

Tens	Ones
4	2
+	8

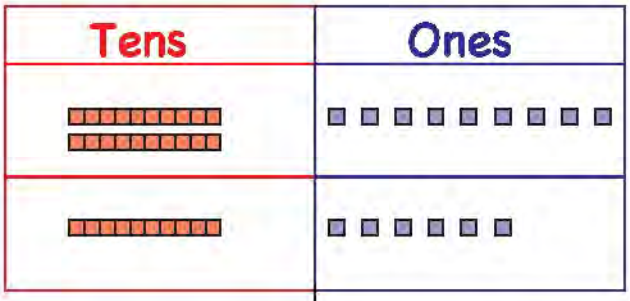
Tens	Ones
1	9
+	4

Tens	Ones
1	4
+	8

Tens	Ones
8	7
+	3

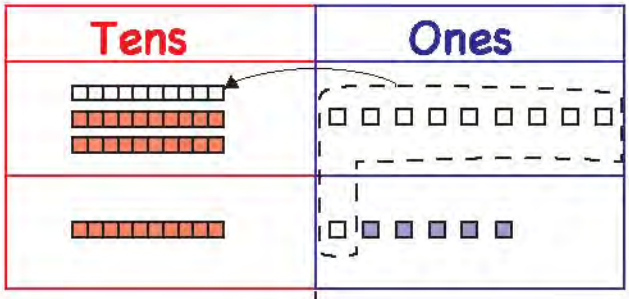
Find the sum of 29 and 16.

Tens	Ones
2	9
+ 1	6



Step 1:
Add ones.

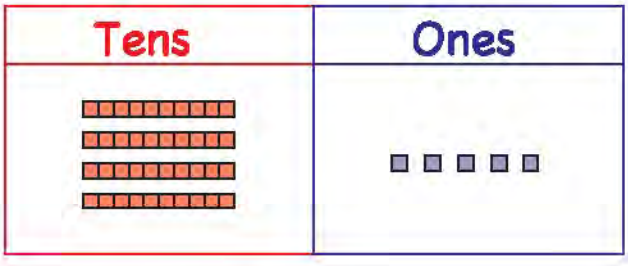
Tens	Ones
$^{1}2$	9
+ 1	6
	5



9 ones + 6 ones = 15 ones
15 ones = 1 ten 5 ones
We will write 5 in the ones column and carry 1 to the tens side.

Step 2:
Add tens.

Tens	Ones
$^{1}2$	9
+ 1	6
4	5



Add the following numbers.

Tens	Ones
3	7
+ 5	6

Tens	Ones
7	9
+ 1	7

Tens	Ones
5	8
+ 3	6

Tens	Ones
1	6
+ 3	4

Tens	Ones
6	8
+ 2	9

Tens	Ones
3	5
+ 1	9

Tens	Ones
2	6
+ 3	5

Tens	Ones
1	3
+ 2	8

Tens	Ones
2	9
+ 6	8

Tens	Ones
5	8
+ 3	2

Tens	Ones
5	8
+ 2	8

Tens	Ones
1	6
+ 1	5

Addition of hundreds, tens and units

Find the sum of 243 and 24.

Step 1:
Add ones.

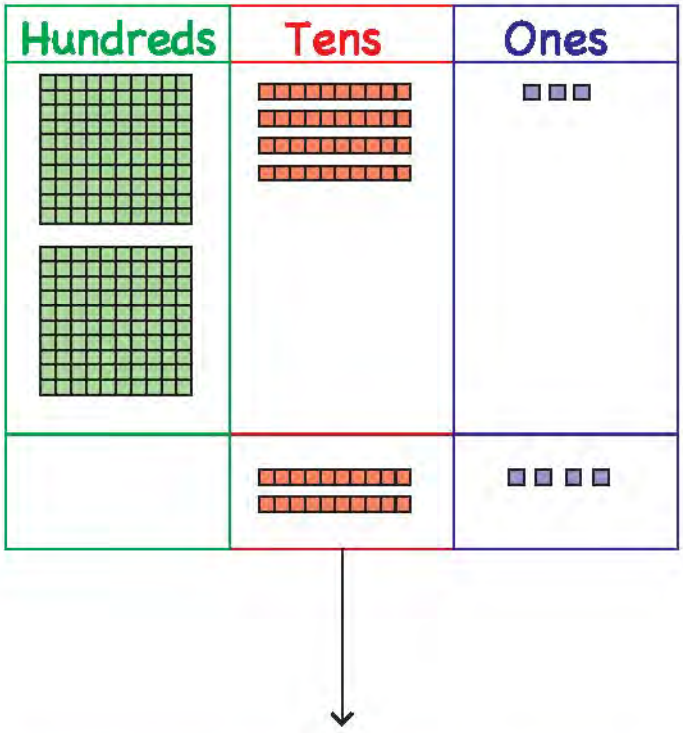
	H	T	O
	2	4	3
+		2	4
			7

Step 2:
Add tens.

	H	T	O
	2	4	3
+		2	4
		6	7

Step 3:
Add hundreds

	H	T	O
	2	4	3
+		2	4
	2	6	7



Add the following numbers. Remember that H stands for hundreds, T for tens and O for ones.

	H	T	O
	9	6	5
+			4

	H	T	O
	8	7	8
+			1

	H	T	O
	8	6	3
+			5

	H	T	O
	4	5	6
+		2	3

	H	T	O
	3	2	8
+		4	1

	H	T	O
	7	6	3
+		2	6

	H	T	O
	9	3	4
+		6	5

	H	T	O
	8	6	4
+		2	5

	H	T	O
	7	1	3
+		5	5

	H	T	O
	4	5	2
+	4	1	3

	H	T	O
	1	8	0
+	7	1	8

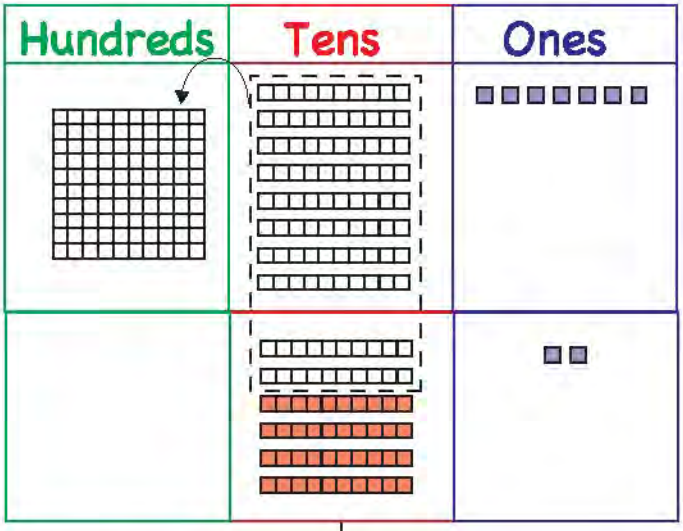
	H	T	O
	4	3	5
+	5	1	2

Find the sum of 87 and 62.

	H	T	O
		8	7
+		6	2
			9

Step 1:
Add ones.

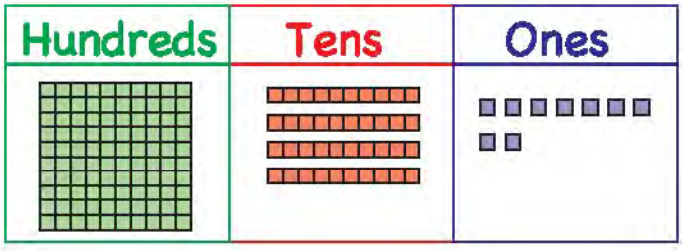
	H	T	O
		8	7
+		6	2
			9



Step 2:
Add tens.

	H	T	O
		8	7
+		6	2
	1	4	9

8 tens + 6 tens = 14 tens
14 tens = 1 hundred 4 tens
We will write 4 in the tens column and 1 in the hundreds column



Add the following numbers. Remember that H stands for hundreds, T for tens and O for ones.

	H	T	O
		6	7
+		5	2

	H	T	O
		4	3
+		8	2

	H	T	O
		6	4
+		4	2

	H	T	O
		7	2
+		3	5

	H	T	O
		3	5
+		8	4

	H	T	O
		7	1
+		4	3

	H	T	O
		9	1
+		8	5

	H	T	O
		2	3
+		8	6

	H	T	O
		4	0
+		8	3

	H	T	O
		5	6
+		9	1

	H	T	O
		6	5
+		7	3

	H	T	O
		5	4
+		9	0

Add 142 and 87.

	H	T	O
	1	4	2
+		8	7

Step 1:
Add ones.

	H	T	O
	1	4	2
+		8	7
			9

Step 2:
Add tens.

	H	T	O
	$^{1}1$	4	2
+		8	7
		2	9

4 tens + 8 tens = 12 tens
12 tens = 1 hundred 2 tens
We will write 2 in the tens column and carry 1 to the hundreds column

Step 3:
Add hundreds

	H	T	O
	$^{1}1$	4	2
+		8	7
	2	2	9

Add the following numbers. Remember that H stands for hundreds, T for tens and O for ones.

	H	T	O
	1	2	3
+		8	4

	H	T	O
	7	3	7
+		8	1

	H	T	O
	1	7	5
+		9	2

	H	T	O
	4	3	0
+		7	8

	H	T	O
	5	2	2
+		9	7

	H	T	O
	6	8	5
+		6	4

	H	T	O
	7	6	5
+		5	1

	H	T	O
	7	1	2
+		9	3

	H	T	O
	8	6	5
+		6	0

	H	T	O
	8	1	3
+		9	4

	H	T	O
	5	8	4
+		2	5

	H	T	O
	3	7	8
+		9	0

Add the following numbers.

	H	T	O
	1	8	3
+	7	5	4

	H	T	O
	6	7	8
+	1	5	0

	H	T	O
	3	8	2
+	1	4	5

	H	T	O
	2	7	7
+	1	3	6

	H	T	O
	3	8	2
+	1	2	7

	H	T	O
	1	6	0
+	7	4	2

	H	T	O
	1	5	0
+	4	5	8

	H	T	O
	4	5	3
+	3	9	6

	H	T	O
	2	6	7
+	4	8	2

	H	T	O
	3	5	1
+	4	6	3

	H	T	O
	4	6	0
+	1	8	2

	H	T	O
	1	9	0
+	6	9	3

Addition problems in daily life

There are 5 biscuits in the plate. Ali puts 2 more biscuits. How many total biscuits are there in the plate?

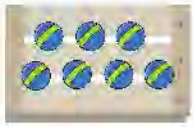
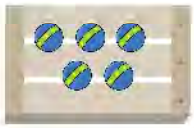
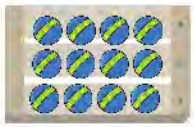
There are 5 biscuits in the plate.		5
Ali puts 2 more biscuits.		2
Total biscuits		7

Zara has 4 balloons. She buys 2 more. How many balloons does she have altogether?

Zara has 4 balloons.		4
She buys 2 more.		2
Total balloons		6

Read the word problem. Complete the table and find the total number.

There were 7 balls in the box. Ahmed put 5 more balls. How many balls were in the box altogether?

There were 7 balls in the box.		
Ahmed put 5 more.		
Total balls		

Sana has 10 pencils. She buys 4 more pencils. How many pencils does she have in total?

Sana has 10 pencils.		
She buys 4 more pencils.		
Total pencils		

Read the following word problems and find the total number.

1. Haris has 20 sweets. His teacher gives him 5 more sweets. How many sweets does Haris have altogether?

2. Zara has 20 pencils. Sana has 15 pencils. How many pencils do they both have in total?

3. There are 129 pages in a book. There are 95 pages in another book. If Zara reads both books, how many pages will she read in total?

4. There are 154 boys and 126 girls in a school. How many students are there in the school altogether?

5. Imran has 43 apples and 27 oranges on his cart. What is the total number of fruits that he has on the cart?

Finding the missing number

Find the missing number.

$$2 + \_\_\_\_\_ = 7$$

Step 1 Look at the answer. Draw that many circles.

The answer is 7 so make 7 circles.

Step 2 Cut circles according to the number before the blank.

The number before the blank is 2 so we cut 2 circles

Step 3 Count the uncut circles. Fill in the missing number.

$$2 + \underline{\ 5\ } = 7$$

The missing number is 5.

5 circles are left uncut so we we write that in the blank

Find the missing number.

2 + _____ = 5 

3 + _____ = 7

4 + _____ = 8

5 + _____ = 6

2 + _____ = 3

1 + _____ = 9

6 + _____ = 8

3 + _____ = 9

1 + _____ = 4

2 + _____ = 4

Subtraction

Ahmed and Zara are giving away some of their toys.They want to know the number of toys left.

Can you help them subtract?

5 

\- 2

_____

6 

\- 3

_____

7 

\- 5

_____

5 

\- 1

_____

9 

\- 5

_____

4 

\- 2

_____

Subtraction of tens and ones

Subtract 3 from 27.

Tens	Ones
2	7
−	3

Step 1:
Subtract ones.

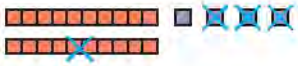
Tens	Ones
2	7
−	3
	4

Step 2:
Subtract tens.

Tens	Ones
2	7
−	3
2	4

Find the difference between 24 and 13.

Tens	Ones
2	4
− 1	3
1	1



Subtract the following numbers.

Tens	Ones
3	8
−	5

Tens	Ones
6	5
−	1

Tens	Ones
8	7
−	4

Tens	Ones
1	9
−	5

Tens	Ones
3	3
−	1

Tens	Ones
2	6
−	4

Tens	Ones
4	3
−	1

Tens	Ones
5	7
−	4

Tens	Ones
1	7
−	5

Tens	Ones
5	6
−	4

Tens	Ones
9	7
−	3

Tens	Ones
6	9
−	7

Subtract the following numbers.

Tens	Ones
6	2
- 2	1

Tens	Ones
8	7
- 4	5

Tens	Ones
4	6
- 2	5

Tens	Ones
7	4
- 2	3

Tens	Ones
5	9
- 2	3

Tens	Ones
6	8
- 2	4

Tens	Ones
3	9
- 2	1

Tens	Ones
7	8
- 4	2

Tens	Ones
8	2
- 1	3

Tens	Ones
9	7
- 8	5

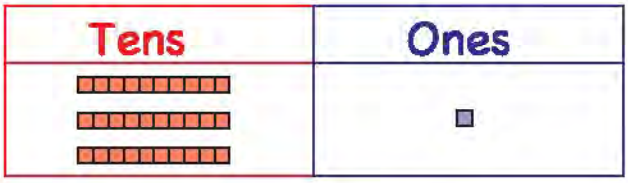
Tens	Ones
4	8
- 3	4

Tens	Ones
5	6
- 1	3

Subtraction with borrowing

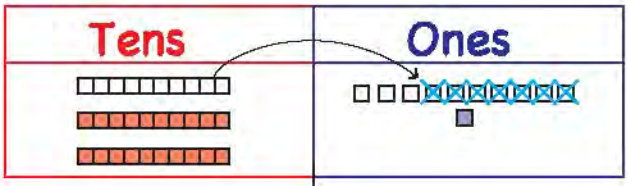
Subtract 7 from 31.

Tens	Ones
3	1
−	7



Step 1:
Subtract ones.

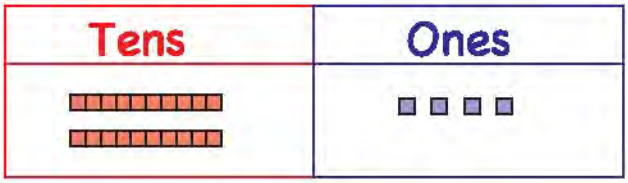
Tens	Ones
~~2~~ 3	1 1
−	7
	4



We cannot subtract
7 ones from 1 one.
We will borrow 1 ten
from the tens side.
1 ten + 1 one = 11 ones
11 − 7 = 4

Step 2:
Subtract tens.

Tens	Ones
~~2~~ 3	1 1
−	7
2	4



Subtract these numbers. Remember that T stands for tens and O for ones.

	T	O
	3	3
-		5

	T	O
	6	4
-		5

Remember:

Step 1 Subtract ones. If you can not subtract ones, borrow 1 ten from the tens side. Then subtract ones.

Step 2 Subtract tens.

	T	O
	8	4
-		9

	T	O
	3	2
-		9

	T	O
	4	3
-		6

	T	O
	5	0
-		8

	T	O
	6	1
-		5

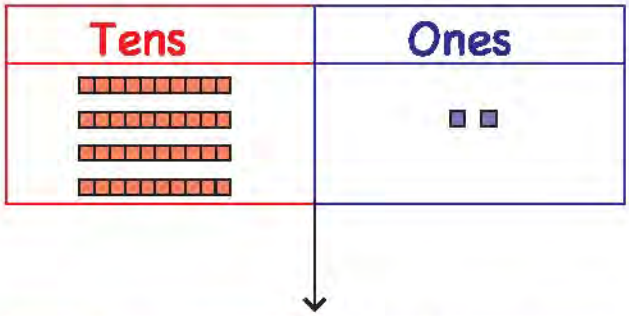
	T	O
	3	4
-		7

	T	O
	4	1
-		3

	T	O
	8	2
-		5

Subtract 18 from 42.

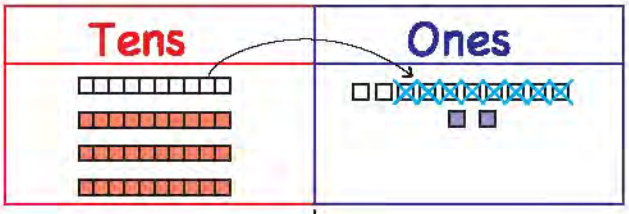
Tens	Ones
4	2
- 1	8



Step 1:
Subtract ones.

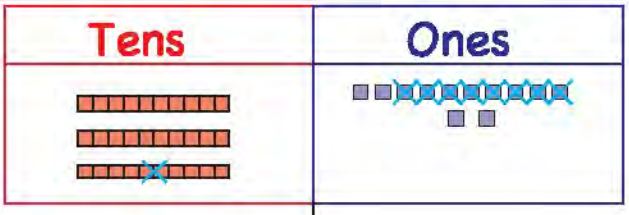
Tens	Ones
~~3~~ 4	1 2
- 1	8
	4

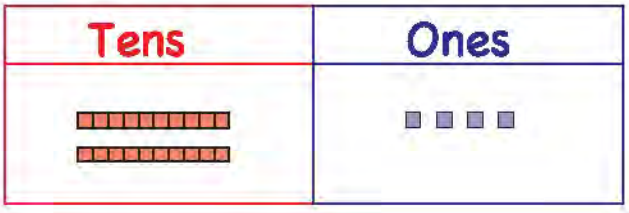
We cannot subtract 8 ones from 2 ones. We will borrow 1 ten from the tens side.
1 ten + 2 ones = 12 ones
12 - 8 = 4



Step 2:
Subtract tens.

Tens	Ones
~~3~~ 4	1 2
- 1	8
2	4





Subtract the following numbers.

	T	O
	6	2
-	1	9

	T	O
	4	5
-	2	8

Remember:

Step 1 Subtract ones. If you cannot subtract ones, borrow 1 ten from the tens side. Then subtract ones.

Step 2 Subtract tens.

	T	O
	5	4
-	1	6

	T	O
	4	3
-	1	7

	T	O
	7	2
-	4	8

	T	O
	6	0
-	4	7

	T	O
	5	3
-	1	8

	T	O
	4	6
-	2	9

	T	O
	8	2
-	4	6

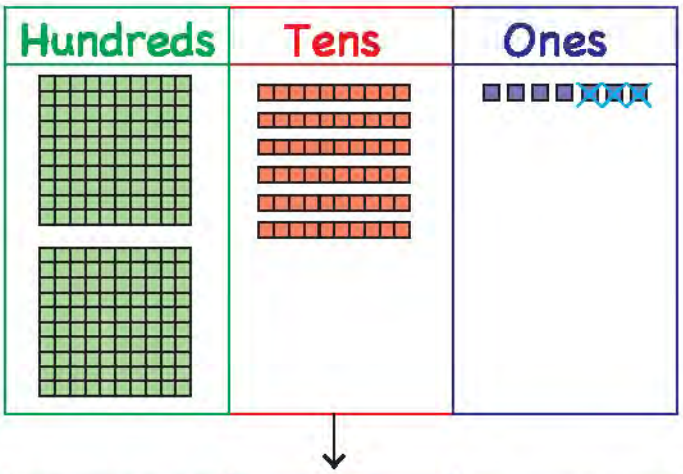
	T	O
	5	1
-	3	9

Subtraction of hundreds, tens and ones

Subtract 143 from 267.

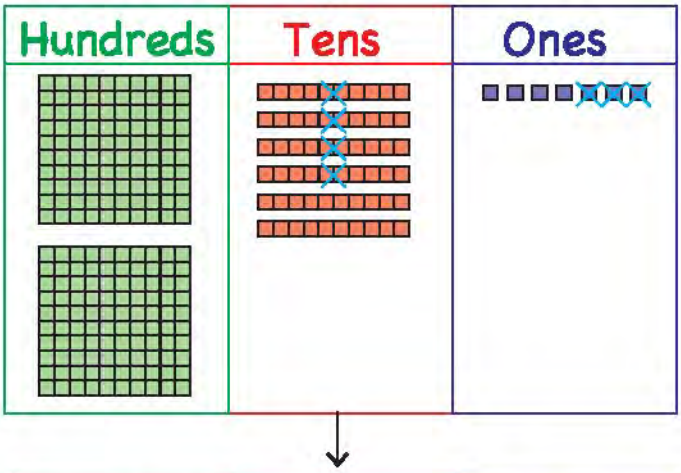
Step 1:
Subtract ones.

	H	T	O
	2	6	7
-	1	4	3
			4



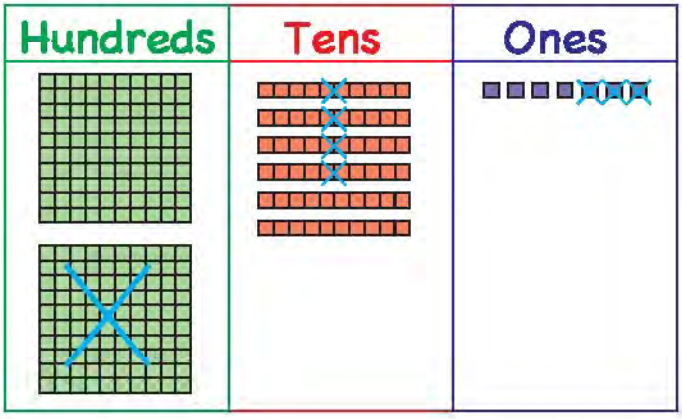
Step 2:
Subtract tens.

	H	T	O
	2	6	7
-	1	4	3
		2	4



Step 3:
Subtract hundreds

	H	T	O
	2	6	7
-	1	4	3
	1	2	4



Subtract the following numbers. Remember that H stands for hundreds, T for tens and O for ones.

	H	T	O
	5	7	8
-			6

	H	T	O
	6	3	4
-			2

	H	T	O
	3	4	6
-			1

	H	T	O
	7	6	8
-		5	7

	H	T	O
	4	8	9
-		6	5

	H	T	O
	8	3	2
-		1	1

	H	T	O
	4	8	3
-		3	0

	H	T	O
	7	9	5
-		6	2

	H	T	O
	8	9	6
-		7	2

	H	T	O
	9	8	7
-	6	7	2

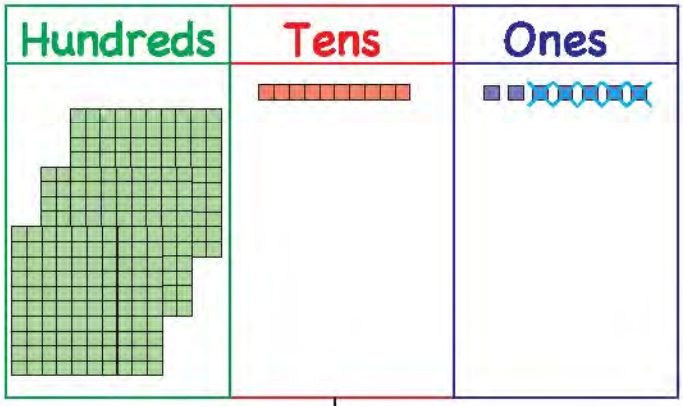
	H	T	O
	7	9	8
-	3	6	5

	H	T	O
	5	3	6
-	4	2	3

Subtract 165 from 317.

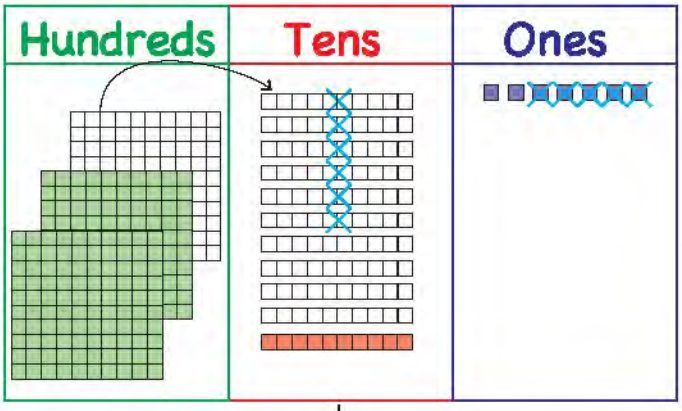
Step 1:
Subtract ones.

	H	T	O
	3	1	7
-	1	6	5
			2



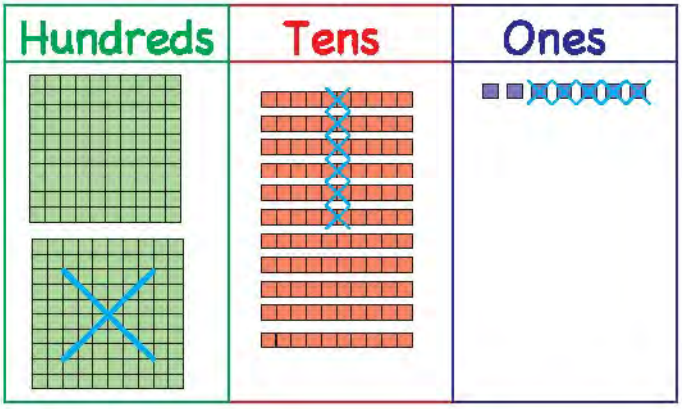
Step 2:
Subtract tens.

	H	T	O
	~~2~~3	1 1	7
-	1	6	5
		5	2



Step 3:
Subtract hundreds

	H	T	O
	~~2~~3	1 1	7
-	1	6	5
	1	5	2



Let's look at another example.

Step 1:
Subtract ones.

	H	T	O
	3	$^{1}\cancel{2}$	$^{1}4$
−	1	5	7
			7

We will borrow 1 ten from the tens side.
1 ten + 4 ones = 14
14 − 7 = 7

Step 2:
Subtract tens.

	H	T	O
	$^{2}\cancel{3}$	$^{11}\cancel{2}$	$^{1}4$
−	1	5	7
		6	2

We are left with 1 ten so we will borrow 1 hundred from the hundreds side.
11 − 5 = 6

Step 3:
Subtract hundreds

	H	T	O
	$^{2}\cancel{3}$	$^{11}\cancel{2}$	$^{1}4$
−	1	5	7
	1	6	2

We are left with 2 hundreds so we will subtract 1 from 2.

Subtract the following numbers.

H	T	O
5	6	7
-	7	5

H	T	O
4	3	7
-	8	2

H	T	O
5	4	3
-	9	2

H	T	O
2	3	7
-	5	4

H	T	O
4	2	9
-	5	7

H	T	O
7	1	4
-	6	2

H	T	O
8	2	3
-	4	6

H	T	O
2	5	4
-	7	1

H	T	O
3	6	5
-	8	2

H	T	O
6	0	9
-	4	2

H	T	O
3	6	7
-	7	2

H	T	O
8	1	4
-	7	0

Subtract the following numbers.

H	T	O
3	2	7
- 1	4	6

H	T	O
8	1	7
- 6	5	3

H	T	O
3	6	1
- 2	4	8

H	T	O
9	3	6
- 7	1	8

H	T	O
5	6	8
- 1	9	4

H	T	O
4	7	5
- 2	3	8

H	T	O
8	4	5
- 2	7	3

H	T	O
6	0	9
- 2	5	7

H	T	O
7	0	5
- 3	6	2

H	T	O
5	7	0
- 2	3	1

H	T	O
6	1	9
- 2	4	8

H	T	O
9	3	8
- 4	6	5

Subtraction problems in daily life

There are 5 apples on a tree. 2 apples fall off.
How many are left on the tree?

There are 5 apples on a tree.		5
2 apples fall off.		2
Apples left		3

There are 4 bottles on a table. 1 bottle falls off.
How many are left on the table?

There are 4 bottles.		4
1 bottle falls off.		1
Bottles left		3

Read the word problem. Complete the table.

There are 6 oranges on a tree. 3 oranges fall off. How many are left on the tree?

There are 6 oranges on a tree.		
3 oranges fall off.		
Oranges left on the tree		

There are 7 biscuits in the plate. Ali eats 2 biscuits. How many are left on the plate?

There are 7 biscuits in the plate.		
Ali eats 2 biscuits.		
Biscuits left in the plate		

Read the word problem and solve the question.

1. Adil has 16 carrots. His sister ate 3 carrots. How many carrots were left with Adil?

2. There are 39 students in Ahmed's class. 5 students were absent. How many students were present?

3. Sana has 549 beads. She loses 127 beads. How many beads are left?

4. Imran grew 81 plants. 13 plants died during the summer. How many plants were left?

5. Ahmed has 135 books. He gives away 18 books to his friends. How many books are left?

6. There were 81 pots in Imran's shop. He sold 27 pots. How many pots were left?

Finding the missing number

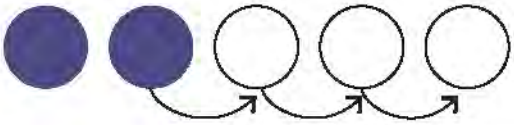
Find the missing number.

$$5 - \_\_\_\_\_ = 2$$

Step 1 Look at the answer. Draw that many circles.

The answer is 2 so we make 2 circles.

Step 2 Look at the number before the blank. Draw more circles till you reach that number.



The number before the blank is 5 so we make 3 more circles.

Step 3 Count the additional circles you made. Fill in the missing number.

$$5 - \underline{\ 3\ } = 2$$

The missing number is 3.

We made 3 more circles so we write that in the blank.

Find the missing number.

5 - _____ = 4

7 - _____ = 2

4 - _____ = 1

9 - _____ = 6

3 - _____ = 2

8 - _____ = 3

6 - _____ = 4

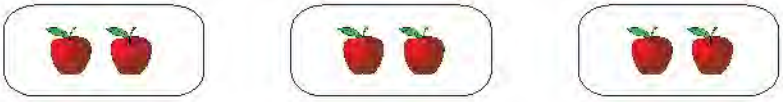
7 - _____ = 3

2 - _____ = 1

9 - _____ = 4

Repeated Addition & Multiplication

How many apples are there altogether?



There are 3 groups.

Each group has 2 apples.

$$2 + 2 + 2 = 6$$

There are 6 apples altogether.

How many fish are there in total?

There are 5 bowls.

Each bowl has 2 fish.

$$2 + 2 + 2 + 2 + 2 = 10$$

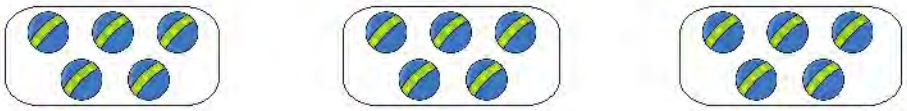
There are 10 fish in total.

Count the number of groups. Count the object in each group and write the total number.

There are _____ groups.

Each group has _____ sweets.

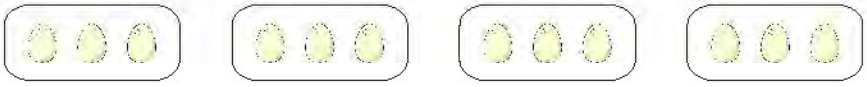
4 + 4 = _____



There are _____ groups.

Each group has _____ balls.

5 + ____ + 5 = ____



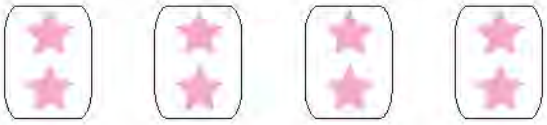
There are _____ groups.

Each group has _____ eggs.

3 + ____ + 3 + ____ = ____

Multiplication

How many stars are there altogether?



There are 4 groups. Each group has 2 stars.

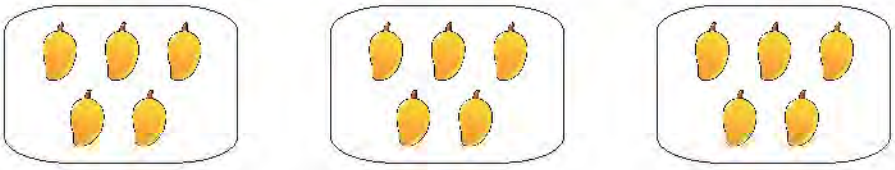
2 + 2 + 2 + 2 = 8

4 x 2 = 8

We read it as **four times two equals eight.**

x is read as times.
It means to multiply or to put all the equal groups altogether.

How many mangoes are there in total?



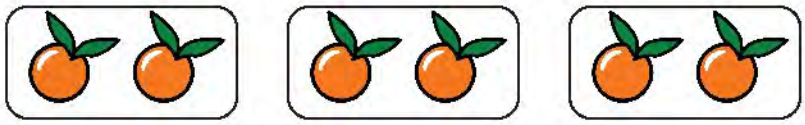
There are 3 groups. Each group has 5 mangoes.

5 + 5 + 5 = 15

3 x 5 = 15

We read it as **three times five equals fifteen.**

Look at the pictures and fill in the blanks.



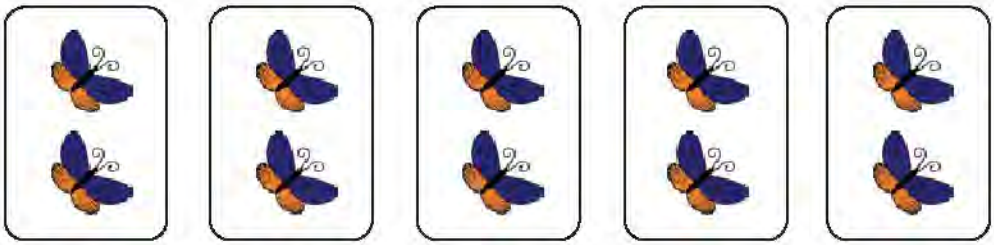
There are ____ groups.

Each group has ____ oranges.

3 x ____ = ____

3 times ____ equals ____.

There are ____ oranges altogether.



There are ____ groups.

Each group has ____ butterflies.

____ x 2 = ____

____ times 2 equals ____.

There are ____ butterflies altogether.

Multiplication Table of 2

1 x 2 = 2
1 times 2 equals 2

2 x 2 = 4
2 times 2 equals 4

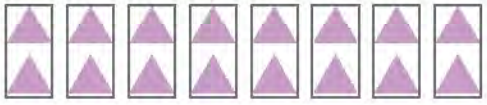
3 x 2 = 6
3 times 2 equals 6

4 x 2 = 8
4 times 2 equals 8

5 x 2 = 10
5 times 2 equals 10

6 x 2 = 12
6 times 2 equals 12

7 x 2 = 14
7 times 2 equals 14

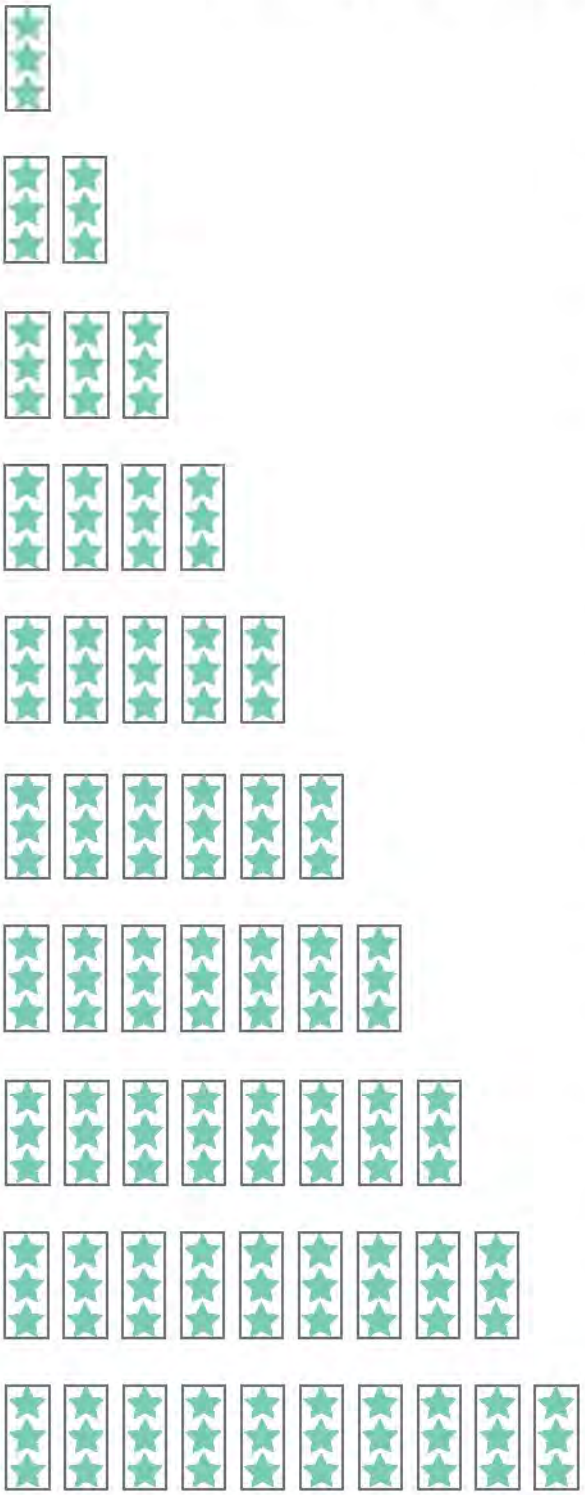


8 x 2 = 16
8 times 2 equals 16

9 x 2 = 18
9 times 2 equals 18

10 x 2 = 20
10 times 2 equals 20

Multiplication Table of 3



1 x 3 = 3
1 times 3 equals 3

2 x 3 = 6
2 times 3 equals 6

3 x 3 = 9
3 times 3 equals 9

4 x 3 = 12
4 times 3 equals 12

5 x 3 = 15
5 times 3 equals 15

6 x 3 = 18
6 times 3 equals 18

7 x 3 = 21
7 times 3 equals 21

8 x 3 = 24
8 times 3 equals 24

9 x 3 = 27
9 times 3 equals 27

10 x 3 = 30
10 times 3 equals 30

Read the table of 2 and write the answers.

2 x 2 = ____ 3 x 2 = ____ 6 x 2 = ____

9 x 2 = ____ 1 x 2 = ____ 5 x 2 = ____

Complete the table of 2.

x	1	2	3	4	5	6	7	8	9	10
2	2	4								

Look at the pictures and fill in the blanks.

4 x ____ = ____

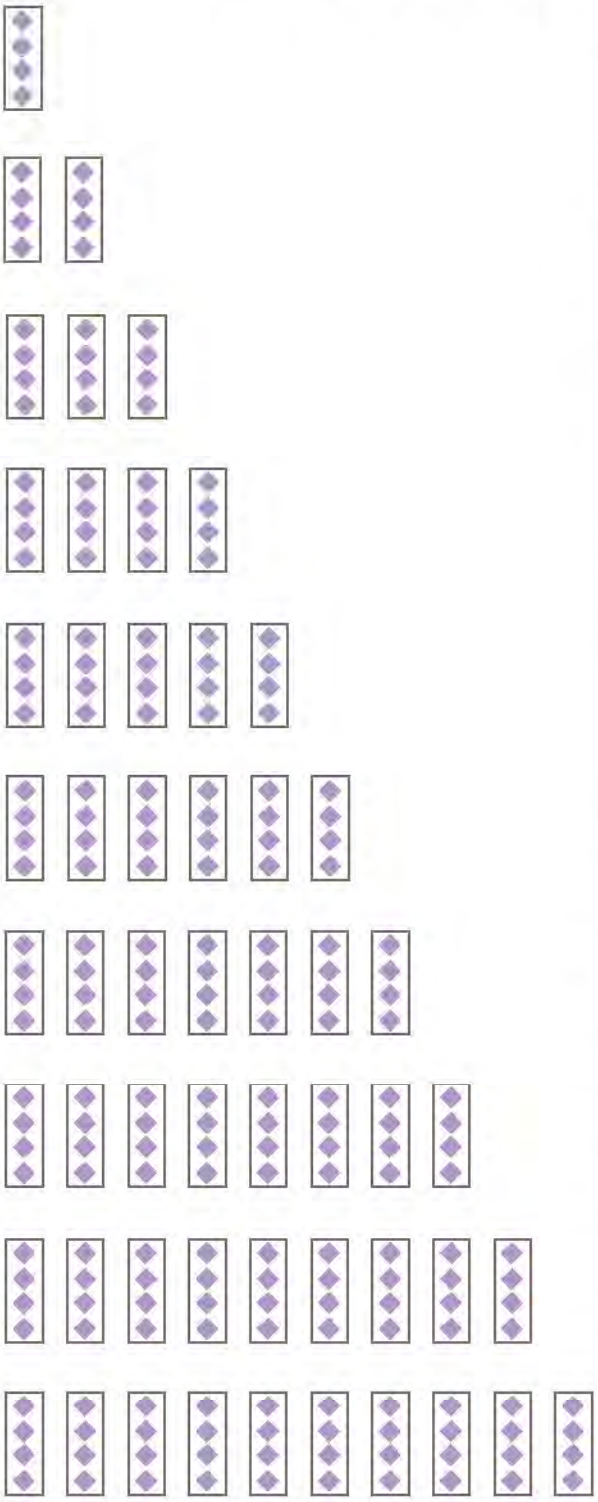
4 times ____ equals ____

There are ____ triangles altogether.

Complete the table of 3.

x	1	2	3	4	5	6	7	8	9	10
3	3	6								

Multiplication Table of 4



1 x 4 = 4
1 times 4 equals 4

2 x 4 = 8
2 times 4 equals 8

3 x 4 = 12
3 times 4 equals 12

4 x 4 = 16
4 times 4 equals 16

5 x 4 = 20
5 times 4 equals 20

6 x 4 = 24
6 times 4 equals 24

7 x 4 = 28
7 times 4 equals 28

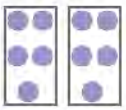
8 x 4 = 32
8 times 4 equals 32

9 x 4 = 36
9 times 4 equals 36

10 x 4 = 40
10 times 4 equals 40

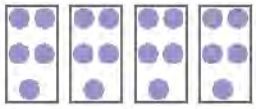
Multiplication Table of 5

1 x 5 = 5
1 times 5 equals 5



2 x 5 = 10
2 times 5 equals 10

3 x 5 = 15
3 times 5 equals 15

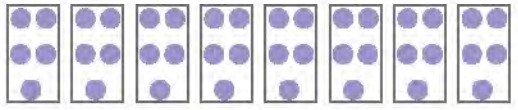


4 x 5 = 20
4 times 5 equals 20

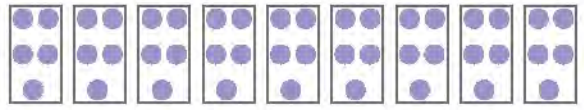
5 x 5 = 25
5 times 5 equals 25

6 x 5 = 30
6 times 5 equals 30

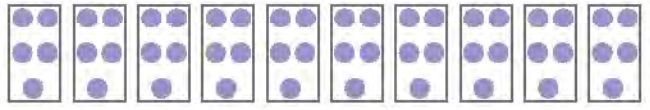
7 x 5 = 35
7 times 5 equals 35



8 x 5 = 40
8 times 5 equals 40



9 x 5 = 45
9 times 5 equals 45



10 x 5 = 50
10 times 5 equals 50

Read the table of 4 and write the answers.

2 x 4 = ____ 5 x 4 = ____ 7 x 4 = ____

8 x 4 = ____ 3 x 4 = ____ 6 x 4 = ____

Complete the table of 4.

x	1	2	3	4	5	6	7	8	9	10
4	4	8								

Look at the pictures and fill in the blanks.

2 x ____ = ____

2 times ____ equals ____

There are ____ butterflies altogether.

Complete the table of 5.

x	1	2	3	4	5	6	7	8	9	10
5	5	10								

Multiplication Table of 10

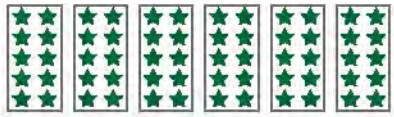
1 x 10 = 10
1 times 10 equals 10

2 x 10 = 20
2 times 10 equals 20

3 x 10 = 30
3 times 10 equals 30

4 x 10 = 40
4 times 10 equals 40

5 x 10 = 50
5 times 10 equals 50



6 x 10 = 60
6 times 10 equals 60

7 x 10 = 70
7 times 10 equals 70

8 x 10 = 80
8 times 10 equals 80

9 x 10 = 90
9 times 10 equals 90

10 x 10 = 100
10 times 10 equals 100

More about Multiplication

How many keys are there in total?

2 + 2 + 2

There are **3 twos** so:

2 + 2 + 2 = 3 x 2

3 x 2 = 6

There are 6 keys altogether.

How many erasers are there in total?

3 + 3 + 3 + 3 + 3

There are **5 threes** so:

3 + 3 + 3 + 3 + 3 = 5 x 3

5 x 3 = 15

There are 15 erasers altogether.

Fill in the blanks.

$4 + \_\_\_\_ + 4 = 3 \times \_\_\_\_$

$5 + 5 = \_\_\_\_ \times 5$

$\_\_\_\_ + 3 + 3 + \_\_\_\_ = 4 \times 3$

$6 + 6 + \_\_\_\_ = 3 \times 6$

$2 + 2 + \_\_\_\_ + 2 + \_\_\_\_ = 5 \times 2$

Multiply and write the answer.

$3 \times 2 =$ _____ $6 \times 2 =$ _____

$3 \times 5 =$ _____ $10 \times 2 =$ _____

$1 \times 3 =$ _____ $9 \times 4 =$ _____

$6 \times 5 =$ _____ $8 \times 3 =$ _____

Repeated Subtraction & Division

Hamza had 8 balloons.

Zubair took 2 balloons from him.

$$8 - 2 = 6$$

Hamza was left with 6 balloons.

Ali took 2 balloons.

$$6 - 2 = 4$$

Hamza was left with 4 balloons.

Ahmed took 2 balloons.

$$4 - 2 = 2$$

Hamza was left with 2 balloons.

Asif took 2 balloons.

$$2 - 2 = 0$$

Hamza was left with 0 balloons.

How many times did Hamza subtract 2?

$8 - 2 = 6$

$6 - 2 = 4$

$4 - 2 = 2$

$2 - 2 = 0$

Hamza subtracted 2 four times.

There are 10 stars. How many times can you subtract 2?

$10 - 2 = 8$

$8 - 2 = 6$

$6 - 2 = 4$

$4 - 2 = 2$

$2 - 2 = 0$

We can subtract 2 five times.

Count the objects. Subtract 2 from them till you are left with 0.

8 - 2 = _____

____ - 2 = _____

____ - 2 = _____

____ - 2 = _____

4 - 2 = _____

____ - 2 = _____

6 - 2 = _____

____ - 2 = _____

____ - 2 = _____

Division

Ahmed has 6 apples.

He wants to put the 6 apples equally into 2 bags.

$6 \div 2 = 3$

6 divided by 2 is equal to 3.

There are 3 apples in each bag.

÷ is read as **divided by**.
÷ stands for **division**

Now, Ahmed wants to put the 6 apples equally into 3 bags.

$6 \div 3 = 2$

There are 2 apples in each bag.

Anum has 12 sweets.

She shares the sweets equally among her 4 friends.

$12 \div 4 = 3$

Each friend gets 3 sweets.

Haris has 10 erasers.

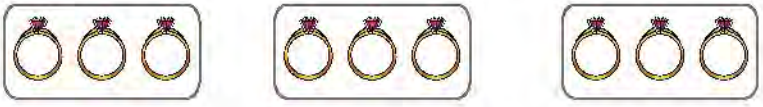
He puts equal number of erasers in 2 boxes.

$10 \div 2 = 5$

There are 5 erasers in each box.

Anum has 9 rings.

She puts equal number of rings in 3 boxes.



$9 \div 3 = 3$

There are 3 rings in each box.

Sana has 18 biscuits.

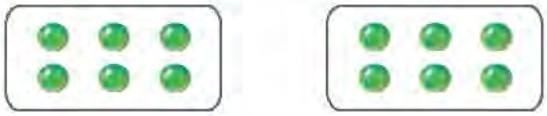
She shares the biscuits equally among her 3 friends.

18 ÷ 3 = ____

Each friend gets ____ biscuits.

Ahmed has 12 marbles.

He puts equal number of marbles in 2 boxes.

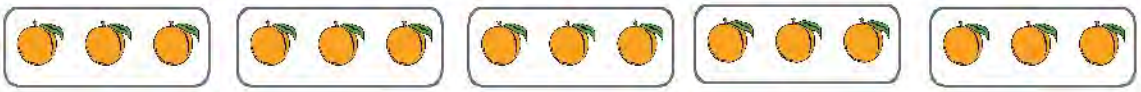


12 ÷ 2 = ____

There are ____ marbles in each box.

Ali has 15 oranges.

He puts equal number of oranges in 5 boxes.

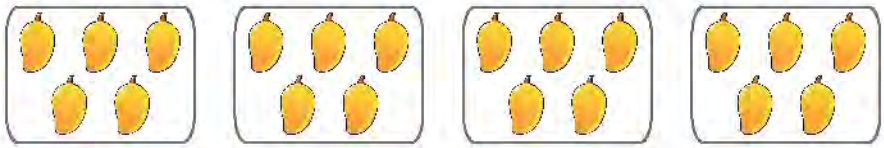


15 ÷ 5 = ____

There are ____ oranges in each box.

1 Ali has 20 mangoes.

He puts equal number of mangoes in 4 boxes.



20 ÷ 4 = ____

There are ____ mangoes in each box.

2 Zara has 10 pencils.

She puts equal number of pencils in 5 boxes.

10 ÷ 5 = ____

There are ____ pencils in each box.

3 Haris has 30 sweets.

He puts equal number of sweets in 3 boxes.

30 ÷ 3 = ____

There are ____ sweets in each box.

Hamza has 8 balloons.

He shares the balloons equally with his 4 friends.

How many balloons does each friend get?

$$8 \div 4 = ?$$

Recall the table of 4.

$$1 \times 4 = 4$$

$$2 \times 4 = 8$$

8 comes in the table of 4 after 2 times.

$$8 \div 4 = 2$$

Each friend gets 2 balloons.

Anum has 6 cups.

She puts equal number of cups in 3 boxes.
How many cups are there in each box?

$$6 \div 3 = ?$$

Recall the table of 3.

$$1 \times 3 = 3$$

$$2 \times 3 = 6$$

6 comes in the table of 3 in the second step.

$$6 \div 3 = 2$$

There are 2 cups in each box.

Divide these numbers.

$6 \div 2 =$ 3

$2 \times 1 = 2$
$2 \times 2 = 4$
$2 \times 3 = 6$

6 comes in the table of 2 after 3 times in the third step

$12 \div 4 =$ _____

$6 \div 2 =$ _____

$25 \div 5 =$ _____

$40 \div 10 =$ _____

$24 \div 4 =$ _____

Shapes

We see shapes around us.

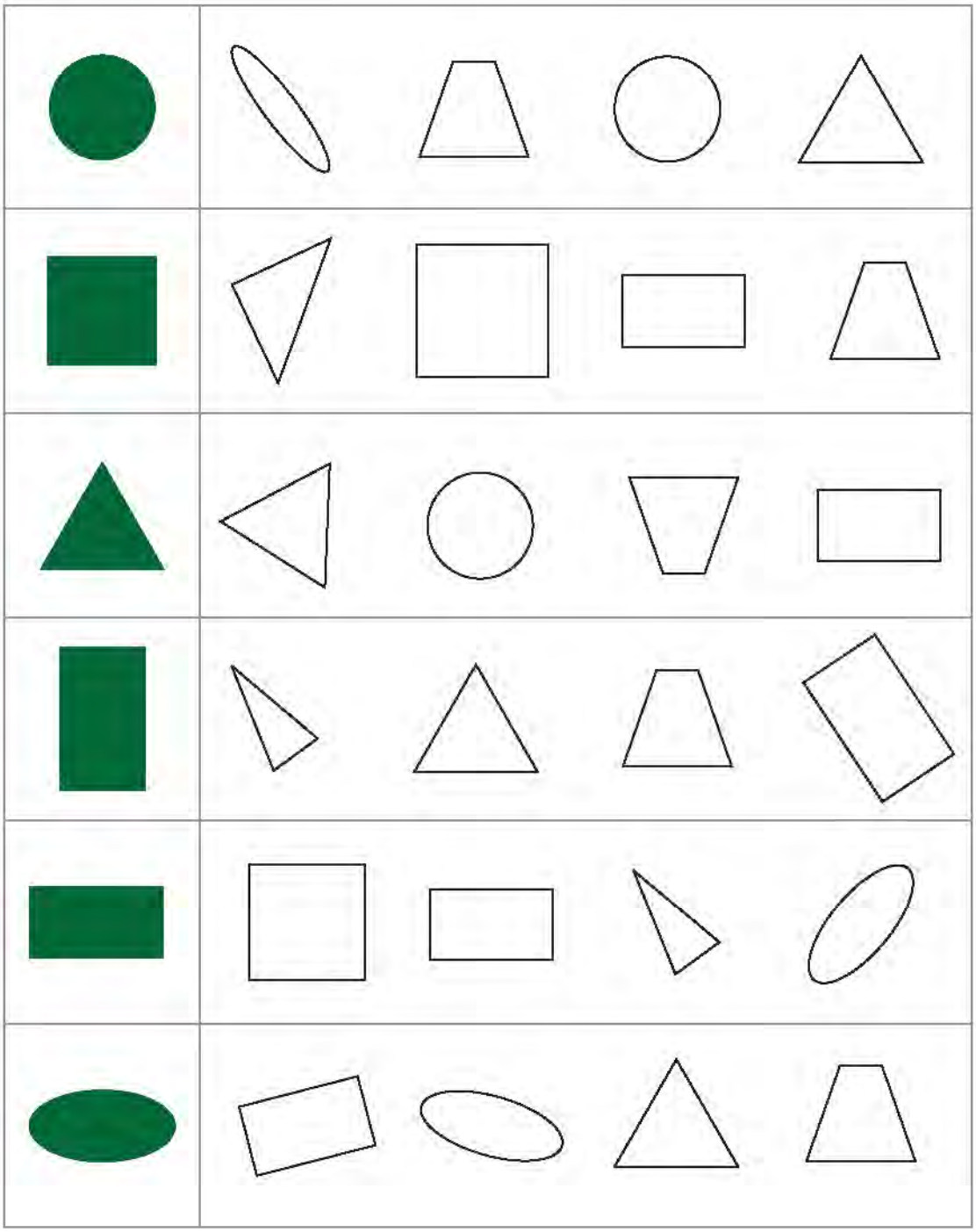
This is a triangle. A triangle has three sides.

This is a rectangle. A rectangle has two opposite sides equal in size.

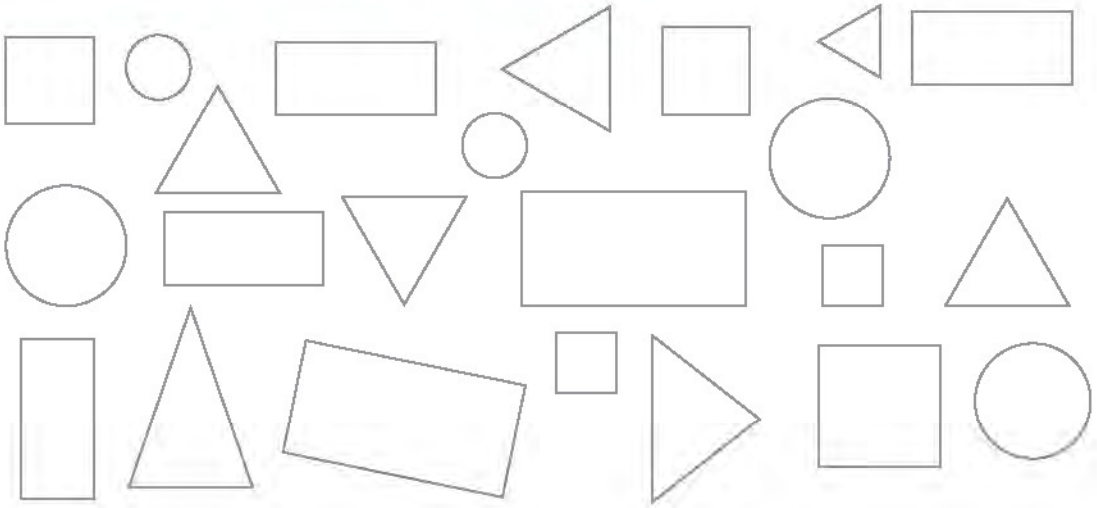
This is a circle. It has no sides.

This is a square. A square has four equal sides.

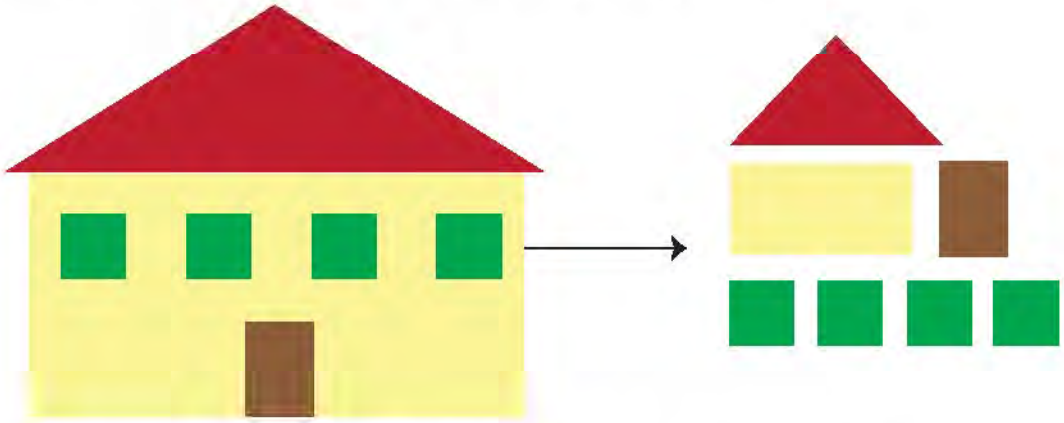
Colour the shape that is like the one in the first column.



Write 1 in all rectangles, 2 in all squares, 3 in all circles and 4 in all triangles.



We can make pictures using shapes.

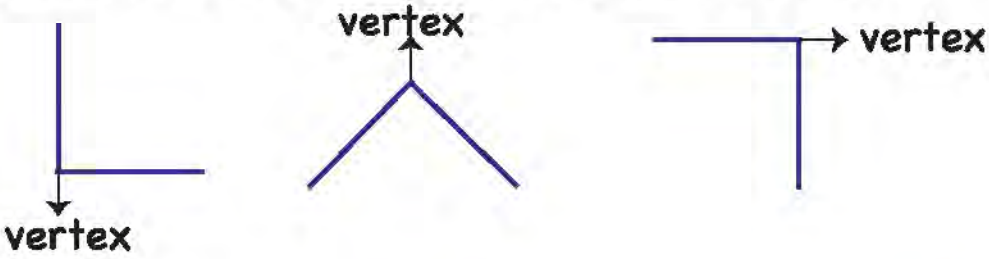


The house is made of 1 triangle, 4 squares and 2 rectangles.

Now, try and make a different picture using these shapes in your notebooks.

Vertex of a shape

The point where 2 sides join is called a vertex.



A triangle has 3 vertices.

A rectangle has 4 vertices.

A circle has 0 vertex.

A square has 4 vertices.

Complete the tables.

Shape	Name	Sides	Vertices
			
			
			
			

Riddles	
I have 3 sides. I have 3 vertices. Who am I?	
I have 4 sides. I have 4 vertices. My sides are equal. Who am I ?	
I have no side. I have no vertex. Who am I?	

Money

We use money every day in our lives. We buy things using coins and notes.

Here are some of the coins and notes we use.


Rs. 5


Rs. 2


Re. 1


Rs. 10


Rs. 20


Rs. 50


Rs. 100

Sana has a Rs. 10 note and a Rs. 5 coin. How much money does she have?


10

+


5

Sana has Rs. 15 in total.

Count the money in each box and write the total amount.

Rs. _____

Rs. _____

Rs. _____

Rs. _____

Rs. _____

Rs. _____

Rs. _____

Ali and Zara are at a shop with their father. They each buy some things. Here are the prices of the things they buy.

Rs. 50

Rs. 100

Rs. 30

Rs. 70

Can you help each of them calculate the total cost?

Zara buys a bag and a cap. What is her total cost?

Ali buys a football and cap. What is his total cost?

Their father buys a book and a bag. What is his total cost?

Ali and Zara stop to buy some apples.

The cost of the apples is Rs. 70.

Their father gives a Rs. 100 note to the fruit seller.

How much money does he get back?

$$\begin{array}{r} {}^{0}\not{1}\,{}^{1}0\;\;0 \\ -\quad 7\;\;0 \\ \hline 3\;\;0 \\ \hline \end{array}$$

We want to know the amount of money left so we will subtract

Ali and Zara's father got Rs. 30 back.

When the money that we give is more than the cost of the object, we get back **change**.

We can say that Ali's father got back Rs. 30 change.

Look at these things.

Pencil
Rs. 5

Sharpener
Rs. 15

Eraser
Rs. 4

Ruler
Rs. 20

Notebook
Rs. 35

1 Ali buys a pencil. He gives the shopkeeper a Rs.20 note. How much change does he get back?

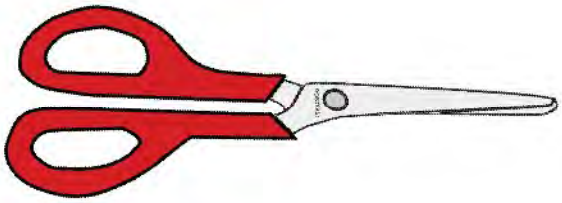
2 Sana buys a ruler. She gives the shopkeeper a Rs.50 note. How much change does she get back?

3 Zubair buys a notebook. He gives the shopkeeper a Rs.100 note. How much change does he get back?

4 Zain buys a sharpener. He gives the shopkeeper a Rs.20 note. How much change does he get back?

Measuring Length

Encircle the longer object.



We can use different things to measure the length of a blackboard.

We can use hand span.

We can use a book.

Measure with your hand span and write the length of these objects.

Desk _____ hand spans

Bag _____ hand spans

Blackboard _____ hand spans

Chair _____ hand spans

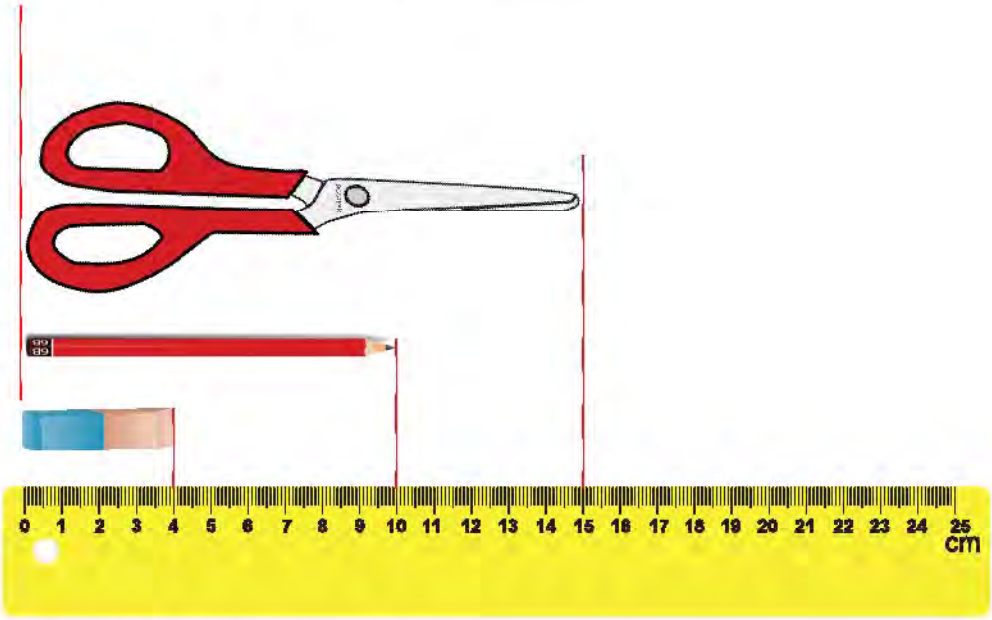
Length in centimetres

For a standard measurement, we use units.

Centimetre is a unit of measurement. We can also write it as **cm**.

We can use a ruler to measure the length of an object.

The length from the 0 mark to the 1 mark on the ruler below is 1 centimetre.

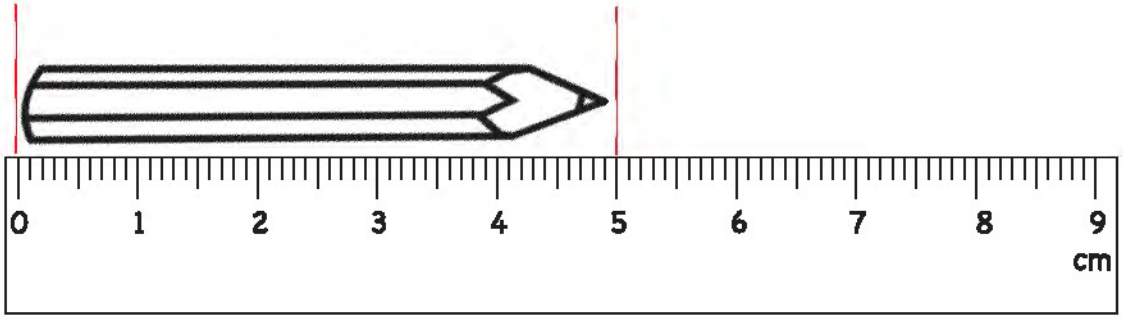


The eraser is 4 cm long.

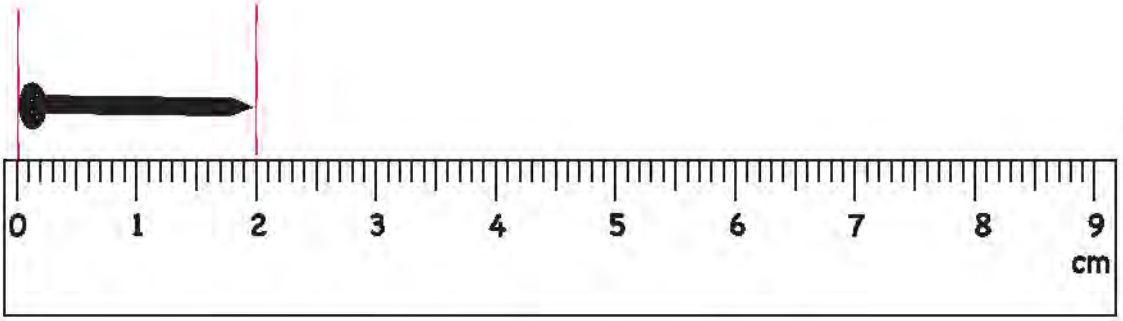
The pencil is 10 cm long.

The scissors is 15 cm long.

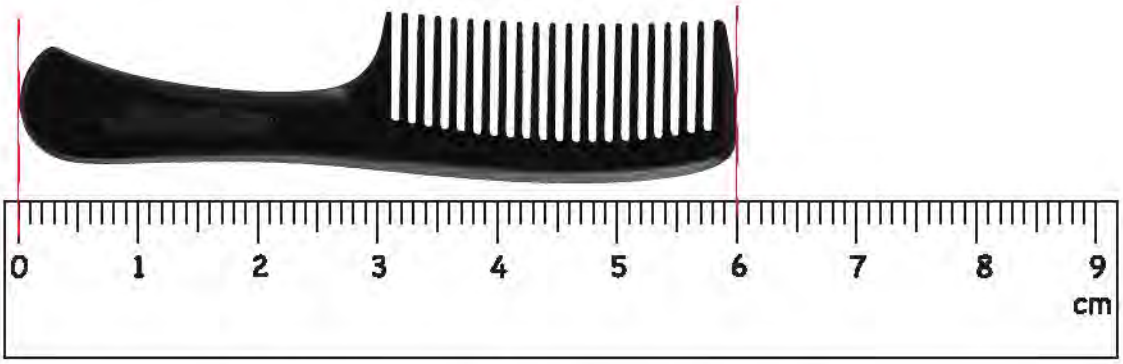
Read the lengths of the objects below.



The length of the pencil is _____ cm.



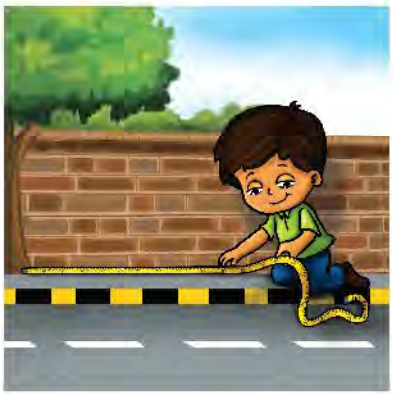
The length of the nail is _____ cm.



The length of the comb is _____ cm.

Length in metres

Ali wants to know the length of the wall. He uses a metre ruler.



We can use **metres** to measure longer objects.

Metres is another unit of measurement. We can write it as **m**.

Tell whether we will use metres or centimetres to measure the given objects.

Truck 	cm	m
Pencil box 	cm	m
Car 	cm	m

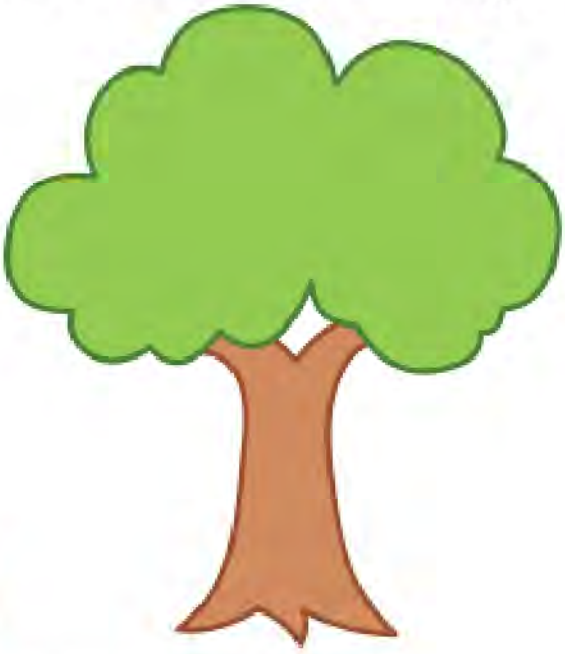
Look at the metre ruler. It is 1 metre long.

The chair is shorter than the metre ruler. It is less than 1 m tall.

Zara is about as tall as the metre ruler. She is about 1 m tall.

The teacher is taller than the metre ruler. She is more than 1 m tall.

Look at the metre ruler. It is 1 metre long.



Which object is greater than 1 m?

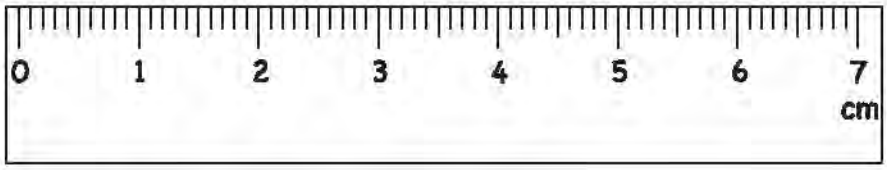
Which object is less than 1 m?

1 Ahmed bought 44 metres long pipe. His brother bought 9 metres long pipe. What is the total length of both pipes?

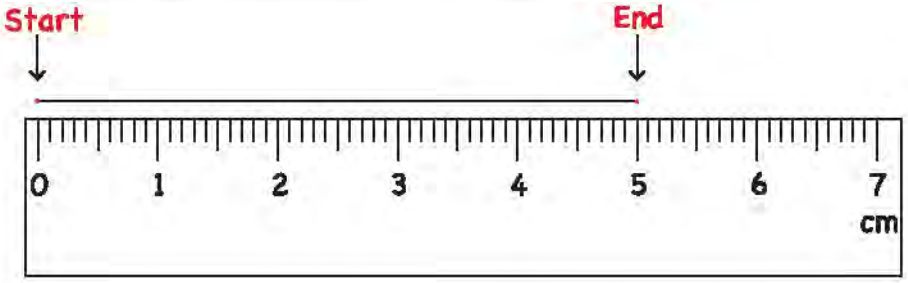
2 Seema has a 54 metre long wire. She gives away 20 metres to her brother. How many metres wire does Seema have now?

We can use a ruler to draw a line of certain length.

Step 1 Place the ruler straight on a flat surface.



Step 2 Draw a line from 0 to 5 cm.

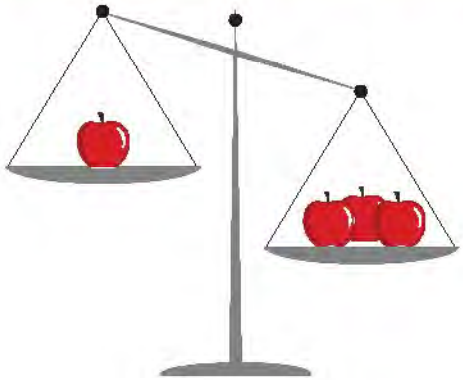


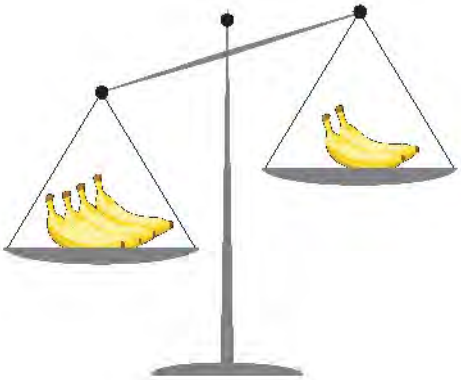
Read the length. Use a ruler to draw a line of that length.

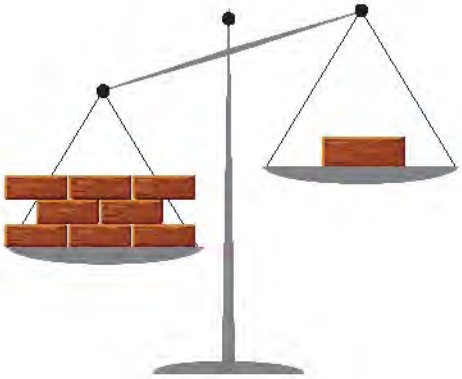
1. 6 cm
2. 7 cm
3. 3 cm
4. 4 cm
5. 9 cm

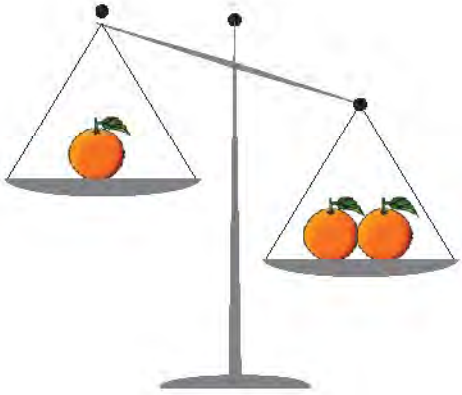
Measuring Mass

Encircle the side that is heavier.









Measuring Mass

We can use standard units of measurement to measure mass.

Gram is a standard unit of measurement. We can write it as **g**.

Look at this: 

This is equal to 1 gram.

There are 4 g
The mass of the pencil is 4 g.

Kilogram is another standard unit of measurement. We can write it as **kg**.

Look at this: 

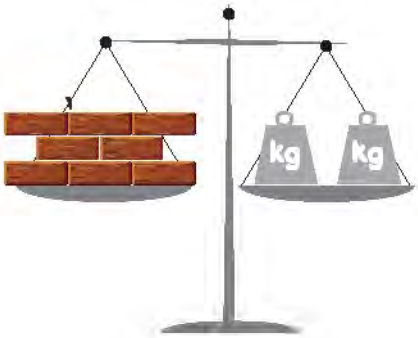
This is equal to 1 kilogram.

There is 1 kg
The mass of the flour is 1 kg.

Look at the pictures. Write the mass of each object.

_____ g

_____ kg



_____ kg

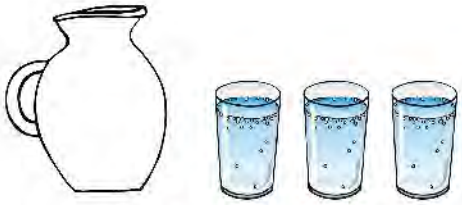
_____ g

1 The mass of mangoes is 5 kg. The mass of apples is 2 kg. What is the total mass of apples and mangoes?

2 Ahmed bought 18 kg of ice. He used 3 kg of ice. How many kg of ice were left?

Measuring Capacity

Look at the jug. How many glasses of water can it hold?



This jug can hold 3 glasses of water.

Encircle the object that will hold less water than the jug.

Encircle the object that will hold the most water.

Sana wants to know the exact amount of water that this pot can hold.

The pot can hold 2 jugs of water.

Each jug can hold 1 litre.

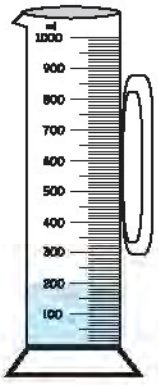
Litre is the standard unit of measurement used to measure **capacity**. We can write it as **L**.

The pot can hold 2 L of water.

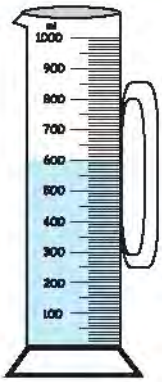
Millilitres is also a standard unit of measurement used to measure capacity. We can write it as **mL**.

Look at this jug.

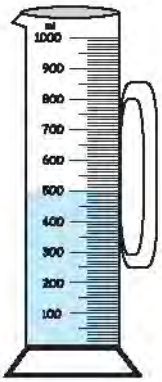
This has 200 mL of water.



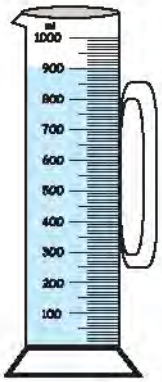
Look at the measuring jug. Write the amount of water in the jug.



_____ mL



_____ mL



_____ mL

1 There are 400 litres of water in a tank.
There are 80 litres of water in a pot.
How many litres of water are there altogether?

2 There are 20 litres of water in a bottle. Hassan drinks 3 litres of water. How many litres of water are left in the bottle?

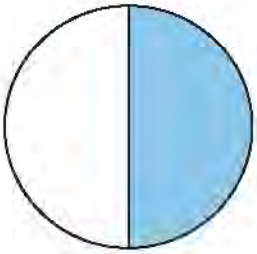
Fractions

Look at the circle.

It is divided into 2 equal parts.

1 part out of 2 is coloured

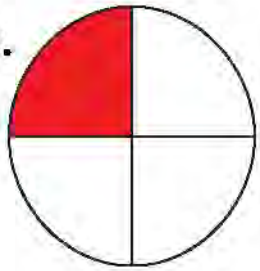
$\frac{1}{2}$ of the circle is coloured.



The circle is divided into 4 equal parts.

1 part out of 4 is coloured.

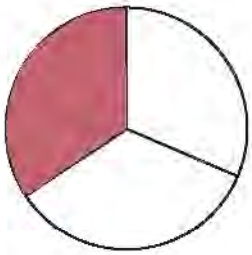
$\frac{1}{4}$ of the circle is coloured.



The circle divided into 3 equal parts.

1 part out of 3 is coloured.

$\frac{1}{3}$ of the circle is coloured.



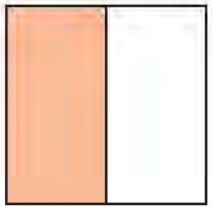
$\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ are examples of **fractions**.

A **fraction** shows a part of a whole that is divided into **equal parts**.

The square is divided into 2 equal parts.

1 part out of 2 is coloured

$\frac{1}{2}$ of the square is coloured.

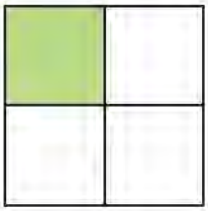


We say **one half of the square** is coloured.

The square is divided into 4 equal parts.

1 part out of 4 is coloured

$\frac{1}{4}$ of the square is coloured.



We say **one quarter of the square** is coloured.

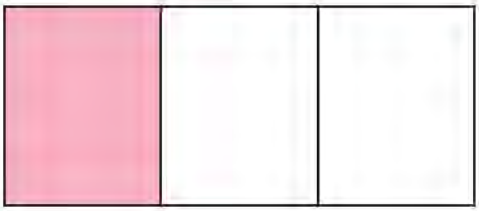
The square is divided into 3 equal parts.

1 part out of 3 is coloured.

$\frac{1}{3}$ of the square is coloured.

We say **one third of the square** is coloured.

Look at the rectangle. What fraction of the rectangle is coloured?



Step 1 Count the number of parts. Write them under the line.

$$\frac{}{3}$$

The rectangle has 3 parts so we will write 3 under the line.

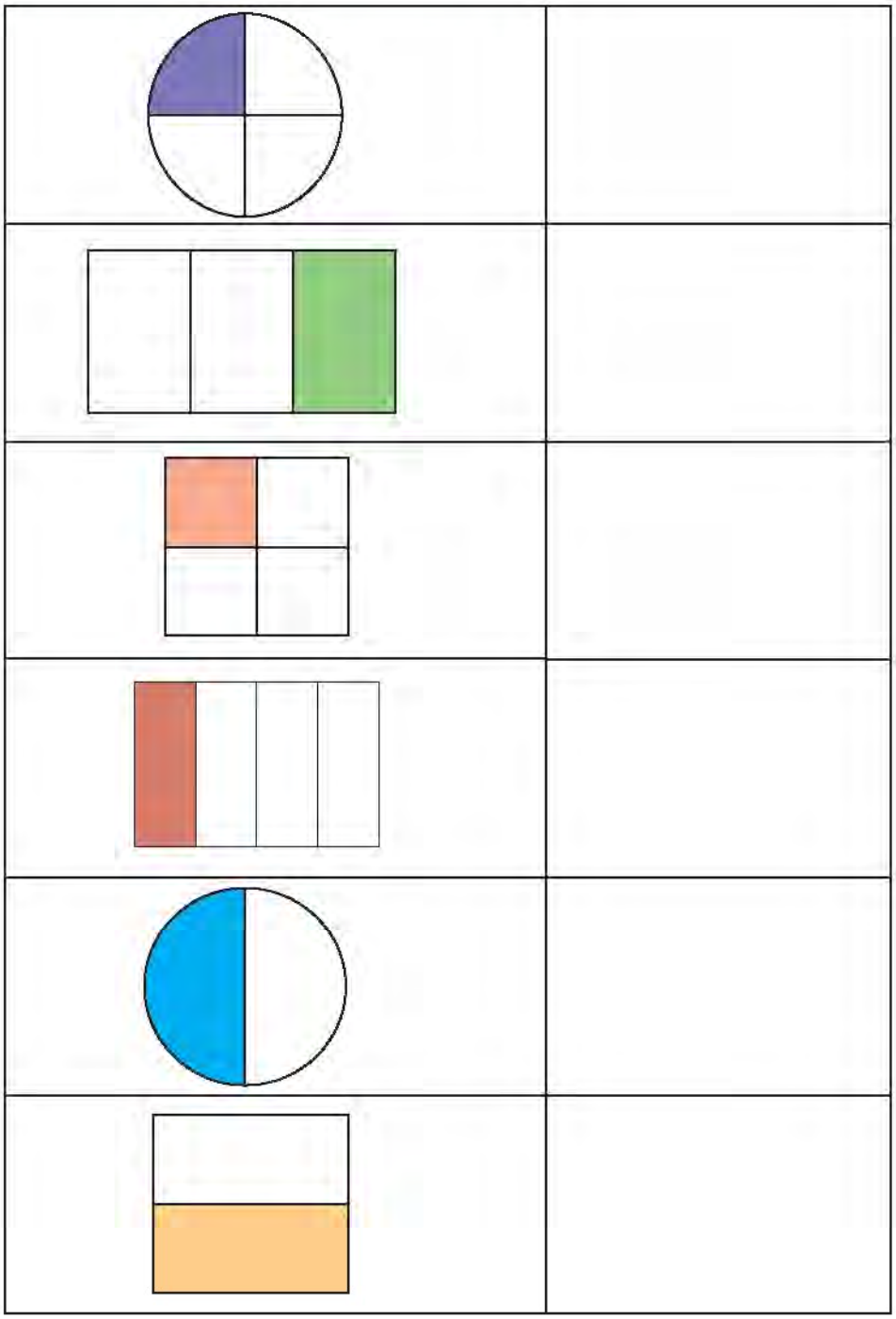
Step 2 Count the number of coloured parts. Write them above the line.

$$\frac{1}{3}$$

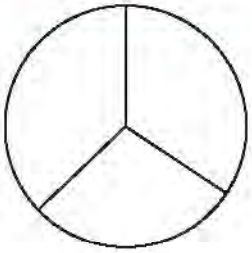
The rectangle has 1 coloured part so we will write 1 above the line.

$\frac{1}{3}$ of the rectangle is coloured.

In the following figures, look at the total number of parts. Then look at the coloured part. Write the fraction that is coloured.

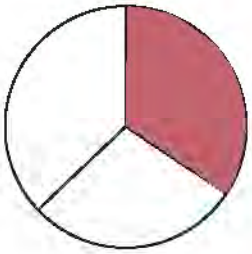


Look at the circle.



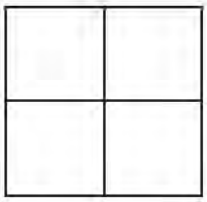
Colour $\frac{1}{3}$ of the circle.

$\frac{1}{3}$ = 1 out of 3 equal parts



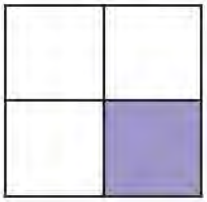
We will colour 1 out of 3 parts.

Look at the square.



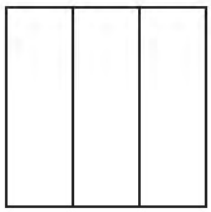
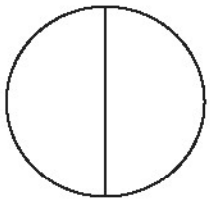
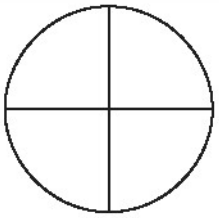
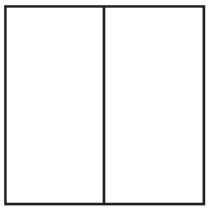
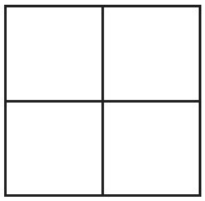
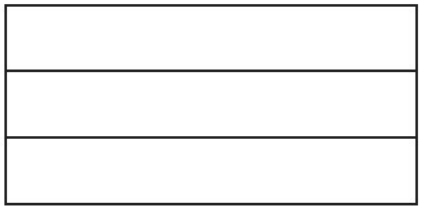
Colour $\frac{1}{4}$ of the square.

$\frac{1}{4}$ = 1 out of 4 equal parts



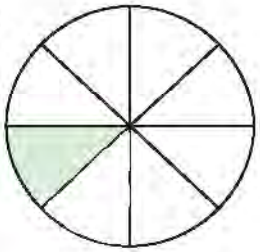
We will colour 1 out of 4 parts.

In the following table, look at the fraction and colour the figure.

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

More about Fractions

Look at the circle. What fraction of the circle is coloured?



Step 1 Count the number of parts. Write them under the line.

$$\frac{}{8}$$

The circle has 8 parts so we will write 8 under the line.

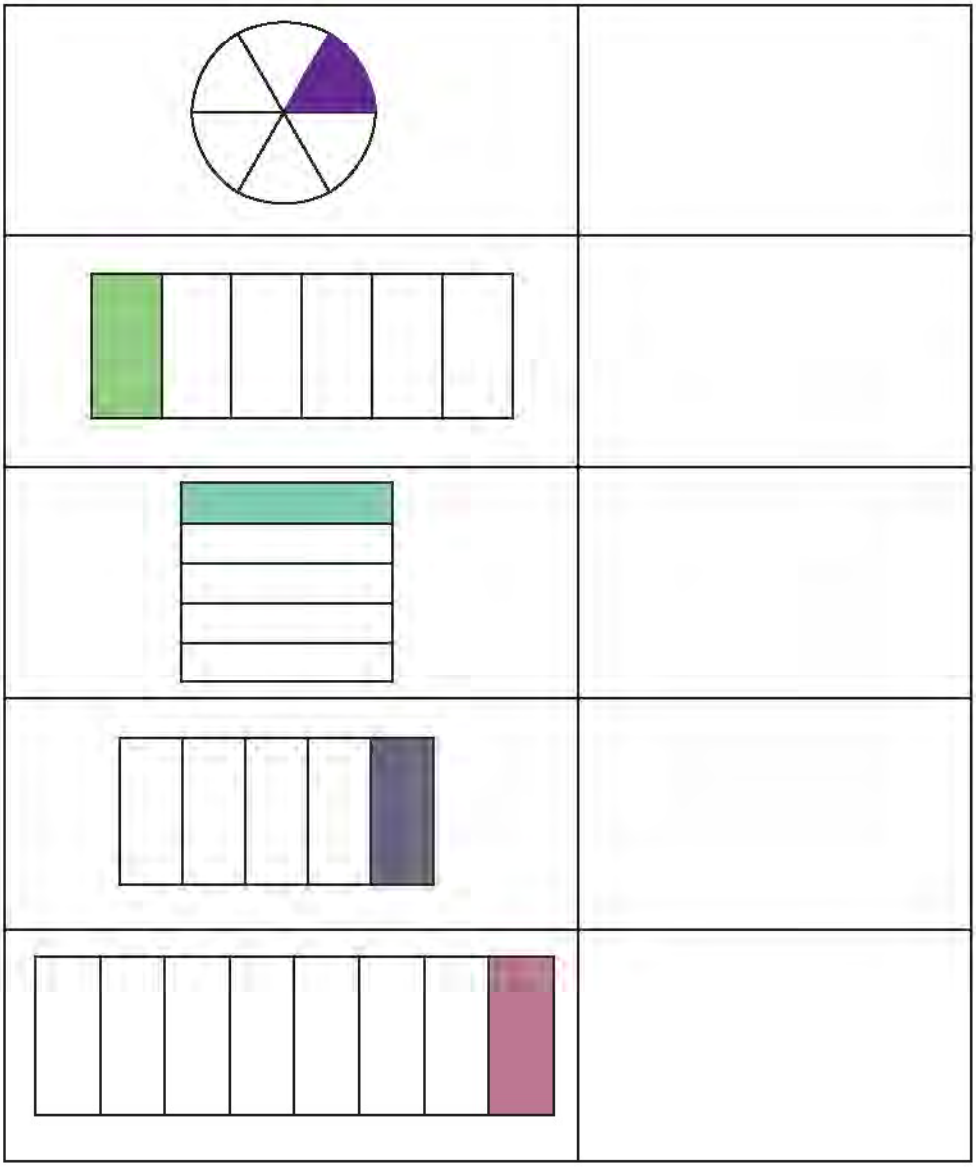
Step 2 Count the number of coloured parts. Write them above the line.

$$\frac{1}{8}$$

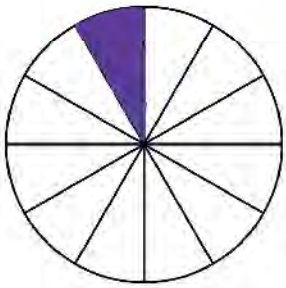
The circle has 1 coloured part so we will write 1 above the line.

$\frac{1}{8}$ of the circle is coloured.

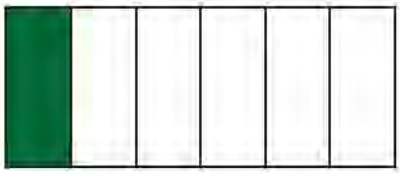
Look at the figure. Write the fraction that is coloured.



Read the fraction. Match it with the correct figure.

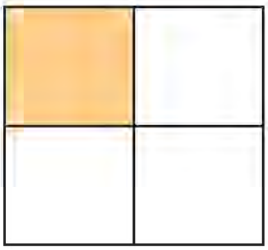


$\frac{1}{6}$



$\frac{1}{5}$

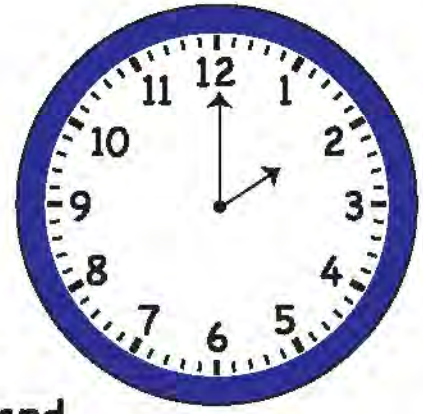
$\frac{1}{4}$



$\frac{1}{12}$

Time

A clock tells us the time.



It has a **minute hand** and an **hour hand**.

The longer hand is the minute hand. It shows us the minutes.

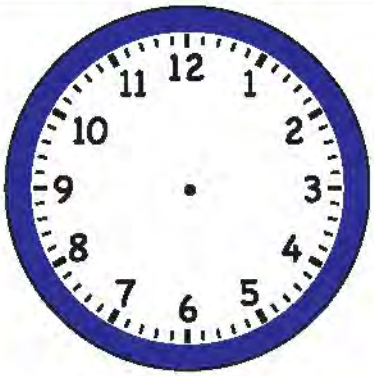
The shorter hand is the hour hand. It shows us the hours.

When the minute hand is pointing towards 12, we read the time as **o'clock**.

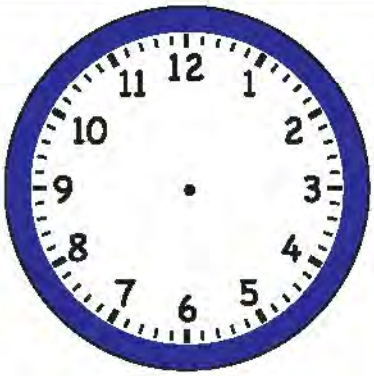
Match the clock with the correct time.

	9 o'clock
	11 o'clock
	5 o'clock

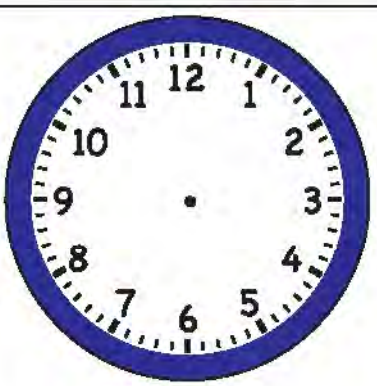
Read the time. Make hands on the clock.



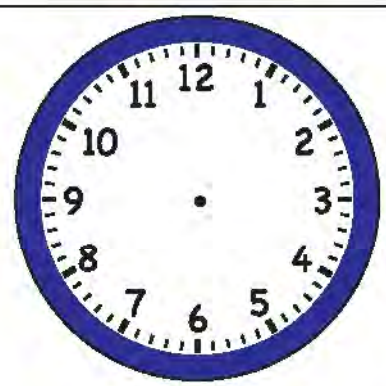
10 o'clock



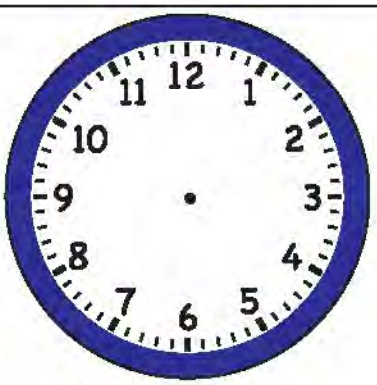
6 o'clock



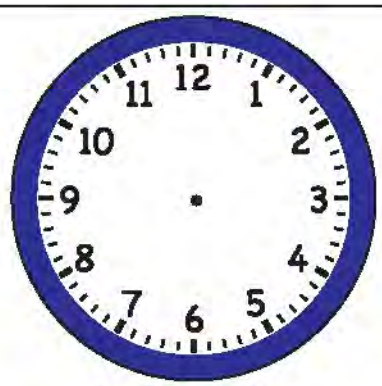
8 o'clock



4 o'clock

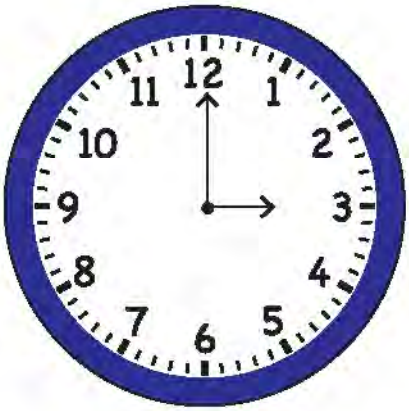


3 o'clock



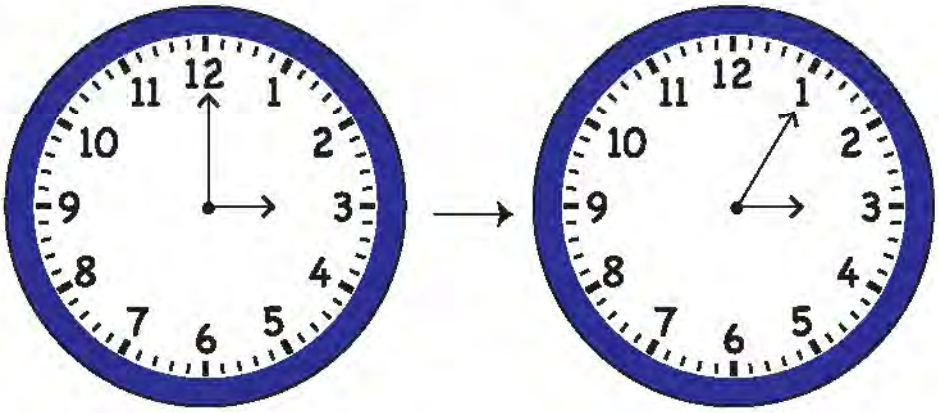
1 o'clock

Look at this clock.



The minute hand is at 12 and the hour hand is at 3.

The minute hand wants to move from 12 to 1. It will count till 5 to reach number 1.



It will again count till 5 to reach number 2 and so on.

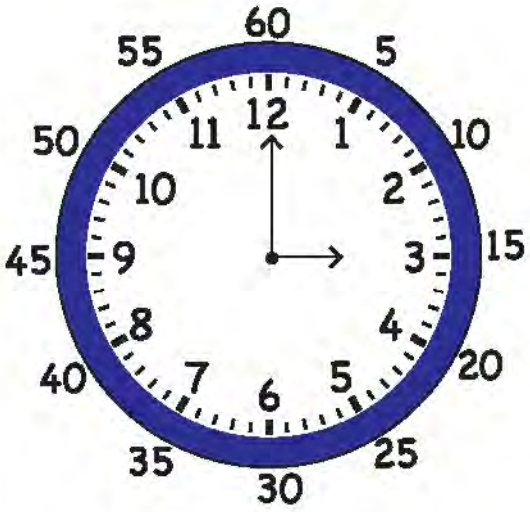
The number of times the long hand is moving are called **minutes**.

How many minutes are there?

Let's count in 5.

It takes 60 minutes for the hour hand to move from 3 to 4.

60 minutes = 1 hour

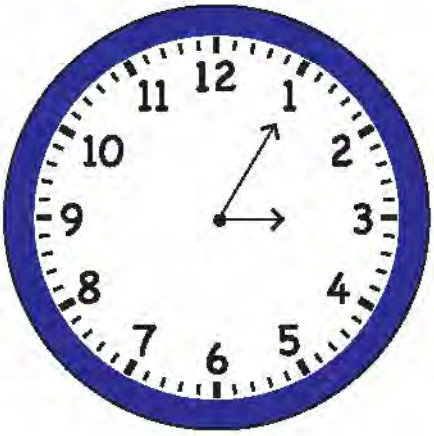


Look at this clock.

The **hour hand** is at 3.

The **minute hand** is at 1.

This means it is 5 minutes after 3 o'clock.



Look at this clock.

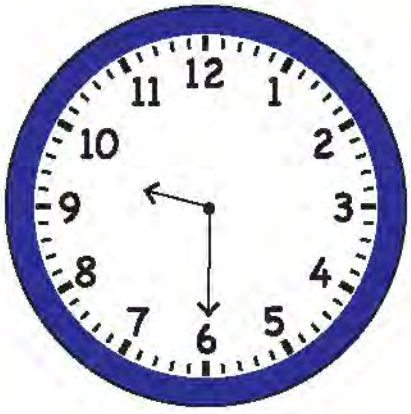
The hour hand is at 3. We write 3 on the left side.

3 :

The minute hand is at 2. This means it is 10 minutes after 3 o'clock. We write 10 on the right hand side.

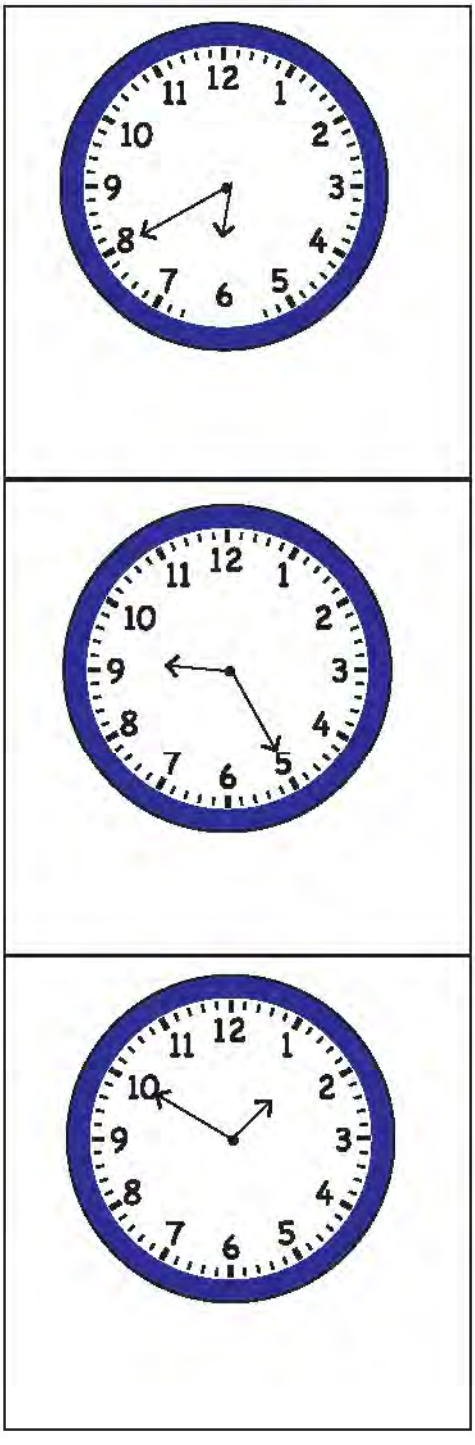
3 : 10

We read this as three ten.



The time is 9 : 30. We read it as nine thirty.

Look at the clock. Write the time under each clock.



Ali wakes up at 8.15 in the morning.

Ali sleeps at 8.15 at night

When Ali wakes up, we say it is **8.15 am.**

When Ali goes to sleep, we say it is **8.15 pm.**

We use **am.** to talk about time just after 12 at night to just before 12 in the morning.

We use **pm.** to talk about time just after 12 in the noon to just before 12 at midnight.

Read the sentence and encircle the right option.

We go to school at 8 ____.	am	pm
Zara eats her breakfast at 9 ____.	am	pm
I go to sleep at 10 ____.	am	pm

Months of the year

Ali's birthday is in April. Zara's birthday is in July.

April and July are names of the months.

Have you seen a calendar?
It shows all the months and dates in a year.

January

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

June

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

August

S	M	T	W	T	F	S
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

September

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

October

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

November

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

December

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Which month comes after January?

Which month comes before July?