Spark of Math

Teacher Book 2



Dar
GHAD AL AJYAL
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2023

Spark of Math

BOOK 2

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- Author
  Melissa Carmelo Morales
  Rania Yasin Mohammed
  Heba Alaa Aldeen Omar
- Art Director - Illustration
  Naseem M Imtair
- Contribute in designing
  Mahmoud Abu Fares
- Editor
  Noor Fathi Saber

Published by:

Dar GHAD AL AJYAL
For Publishing & Distributing

Amman - Jordan
Tel. + 962 6 515 7 555
Fax. + 962 6 515 7 550
Mob. + 962 7 77 08 00 09
info@ajyall.com

www.ajyall.com

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What I know about Math.

Complete the numbers and read:

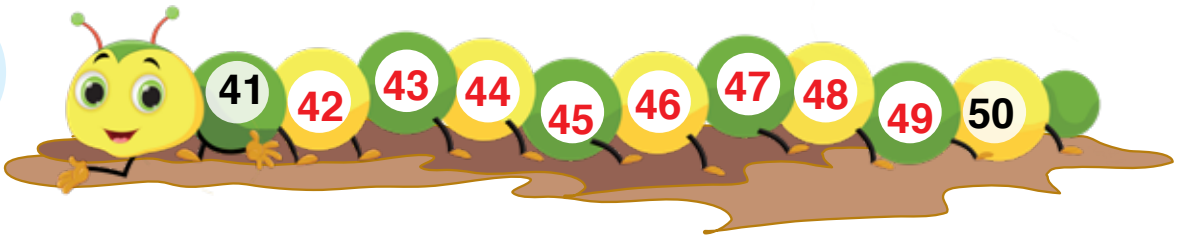






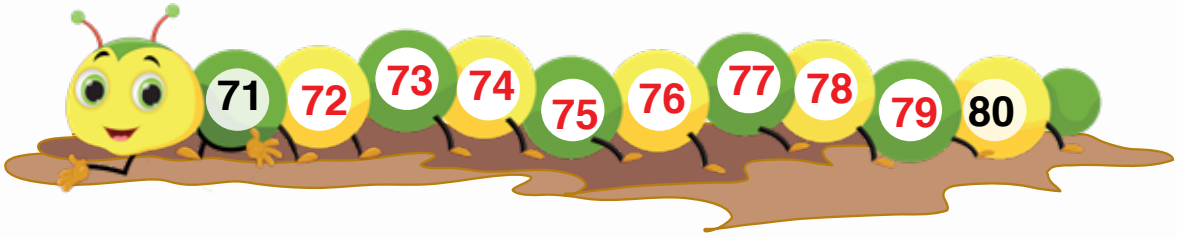







51 52 53 54 55 56 57 58 59 60


61 62 63 64 65 66 67 68 69 70


71 72 73 74 75 76 77 78 79 80


81 82 83 84 85 86 87 88 89 90


91 92 93 94 95 96 97 98 99

Write what comes before, between, or after.

44	45	46	17	18	19	62	63	64
79	80	81	55	56	57	97	98	99

Match the o'clock with its time.





It's 4 o'clock

It's 6 o'clock

It's 7 o'clock

Complete the ordinal numbers.

First 1 Third 3 Fifth 5

Seventh 7 ninth 9

Complete the missing days of the week .

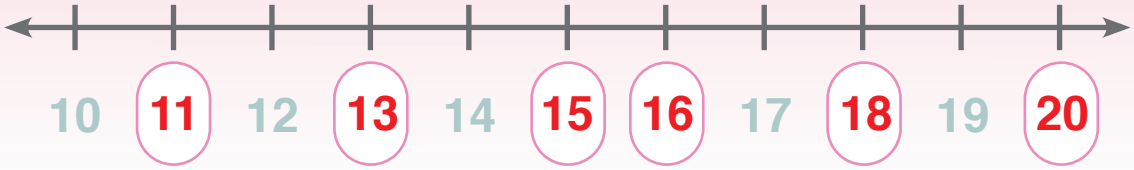
Sunday Monday Tuesday

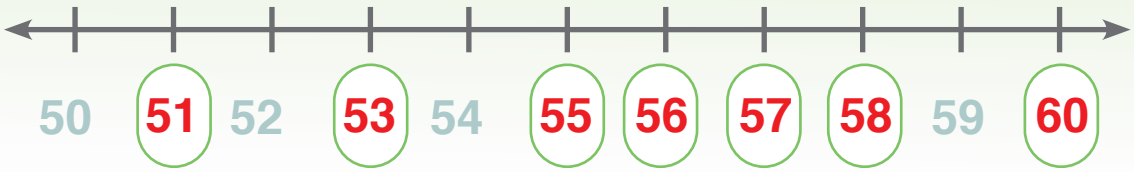
Wednesday Thursday Friday Saturday

Write the missing numbers.

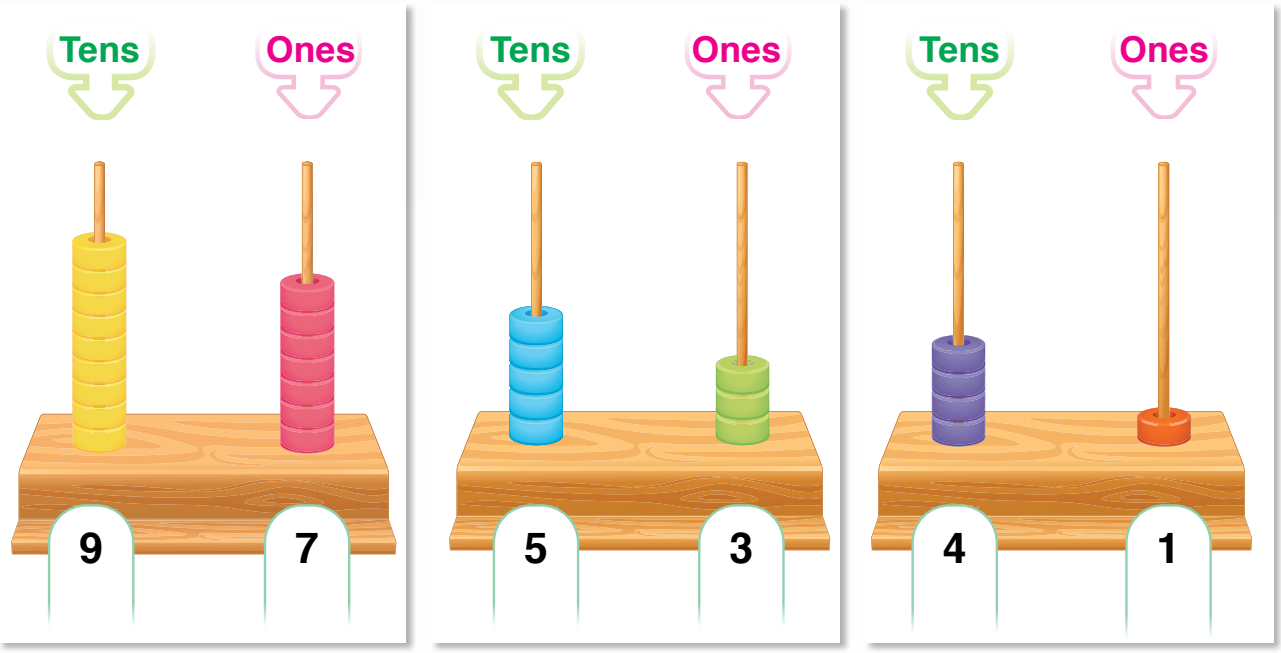
10	20	30	40	50	60	70	80	90

Complete the number line.





Draw the beads in the abacus for the given numbers like in the first example.



3-Digit Numbers



Unit 1



Vocabulary

- ones
- tens
- hundreds
- ascending order
- descending order
- even numbers
- odd numbers
- abacus

3

Objectives

- Count numbers with 3-digits.
- Read and write numbers in words up to 999.
- Compare and arrange 3-digit numbers.
- Recognize even and odd numbers.



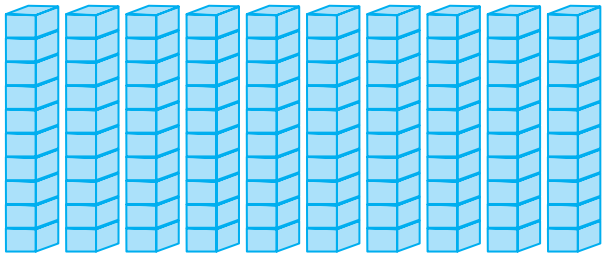
(1-1) 3-Digit Numbers.

Three-digit numbers are divided into units of hundreds, tens, and ones.
Always start analyzing from the far right units.

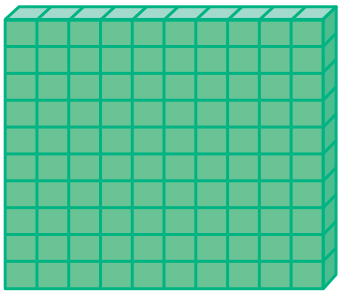
Example: 352 this number has three digits .

Hundreds	Tens	Ones
3	5	2

3-digit numbers, start with 100 up to 999

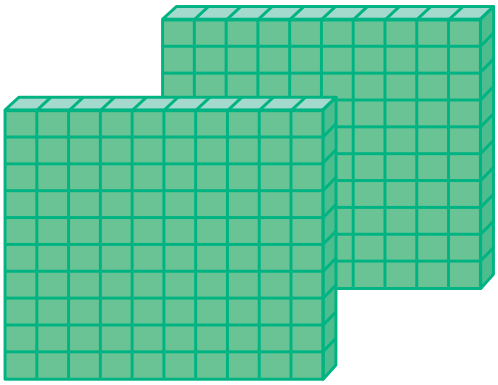


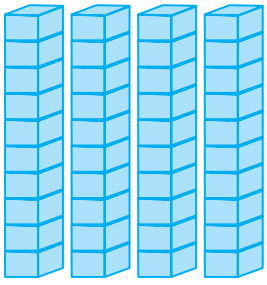
10 Tens = 1 Hundred



We can you show the number 241 using block models.

Hundreds	Tens	Ones
2 Hundred	4 Tens	1

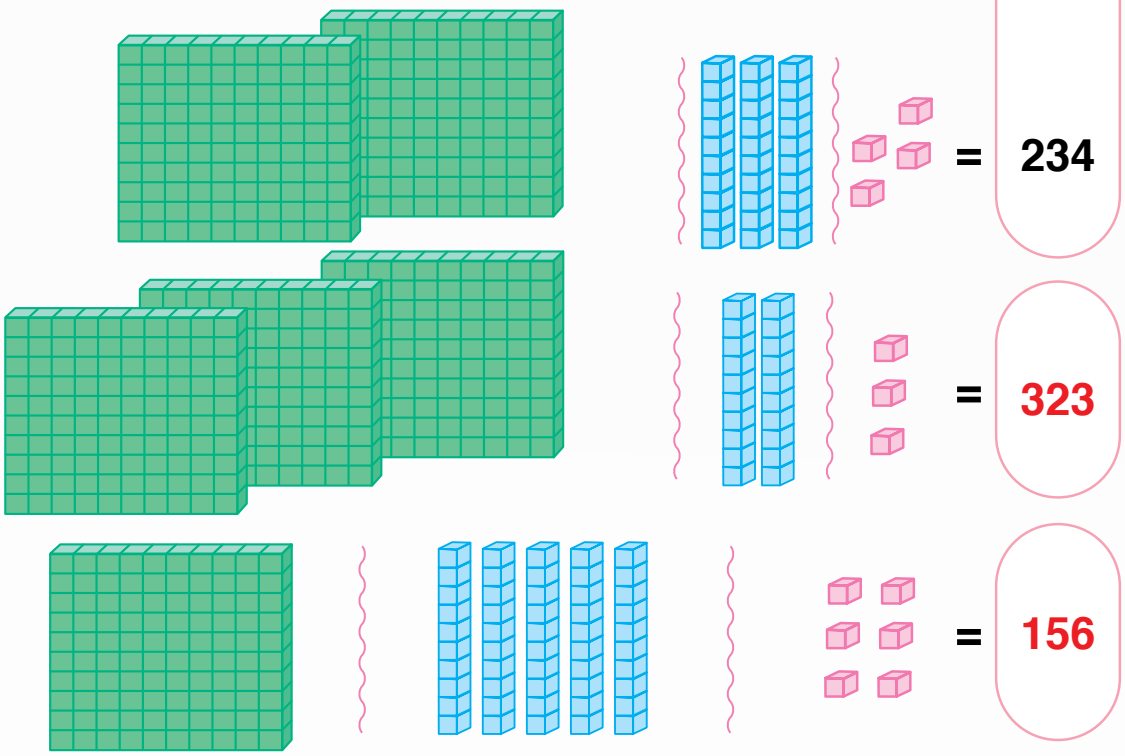




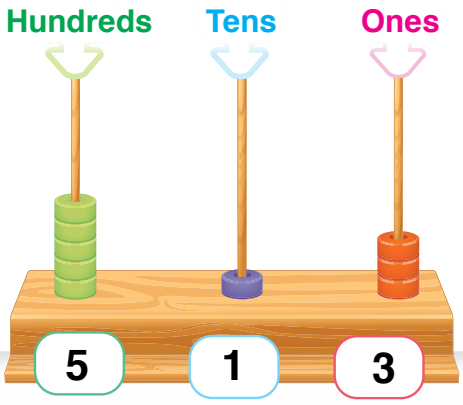


=241 Two hundred and forty one

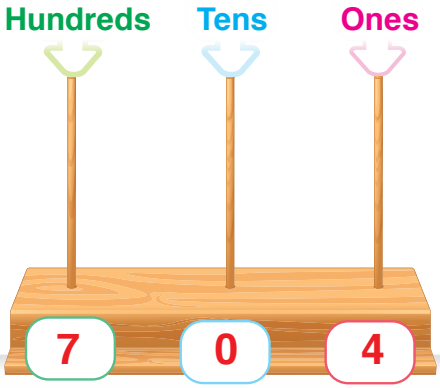
Write the numbers.



We can draw the beads in the abacus for any 3-digit number.

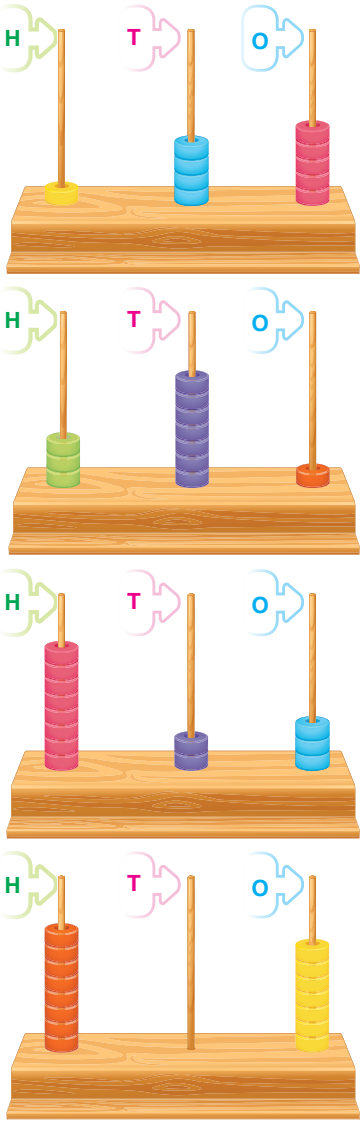


Draw the beads in the abacus for the number 704.



Complete the chart.

Number	Hundreds	Tens	Ones
145	1	4	5
371	3	7	1
823	8	2	3
706	7	0	6



Write the value of the digits in the place named.

452 Ones 2	731 Hundreds 7	890 Tens 9	460 Ones 0	900 Hundreds 9

(1–2) Numbers in Words up to 999.

Look and recognize the hundreds numbers in words.

100 One Hundred	200 Two Hundred	300 Three Hundred	400 Four Hundred	500 Five Hundred
600 Six Hundred	700 Seven Hundred	800 Eight Hundred	900 Nine Hundred	

How to read numbers

- 145 one hundred and forty five
- 960 nine hundred and sixty
- 713 seven hundred and thirteen

To read 3-digit numbers, start reading numbers from the left to the right.

Match the number with the correct number word.

132	Fifty five
55	One hundred and thirty two
781	Five hundred and seven
999	Seven hundred and eighty one
507	Four hundred and thirty six
436	Nine hundred and ninety nine

Circle the correct number.

Two hundred and eighty three	**283**	382
Four hundred and twelve	421	**412**
Six hundred and seventeen	671	**617**
Nine hundred and ninety five	**995**	959



At home.

Collect a number from each column to create your own number, then write it in the box.

Two hundreds	thirty	six
Nine hundreds	twenty	five
Five hundreds	seventy	one

My number is 921

(1–3) Comparing Numbers.

Remember that my mouth is ALWAYS open to the BIGGER number!



Example:

350  250

588  894

666 = 666

> means greater than
56 > 40

< means less than
24 < 30

To compare between numbers, first; line up the digits of each number, then compare starting from the left.

EXAMPLE (2)

Compare between 452 and 651.
Each number has 3 digits, so compare starting from the left.
Since 4 is less than 6, so 452 < 651

452
651

EXAMPLE (2)

Compare between 763 and 743.
Each number has 3 digits, so compare starting from the left.
Since the hundreds are equal, go to the tens.
Since 6 is greater than 4, so 763 > 743

763
743

Write the correct sign (> , < or =).

200	<	300	122	<	212
670	>	183	711	>	546
543	>	244	556	<	656
625	>	550	300	<	500
720	=	720	87	<	351

Circle the greatest number.

(413 , 314 , 143)	(721 , 700 , 701)
(300 , 310 , 301)	(821 , 823 , 832)

We can arrange numbers in ascending or descending order.

Ascending order: arrange numbers from the smallest to the greatest.

Descending order: arrange numbers from the greatest to the smallest.

EXAMPLE (2)

Arrange 589, 958, 855 and 623 in ascending order.

The ascending order is:

589	**623**	**855**	**958**

EXAMPLE (2)

Arrange 589, 958, 855 and 623 in descending order.

The descending order is:

958	**855**	**623**	**589**

Your Work

Arrange in ascending order.

625	321	584	965
321	584	625	965

325	235	252	322
235	252	322	325

Arrange in descending order.

585	978	785	654
978	785	654	585

218	475	312	865
865	475	212	218

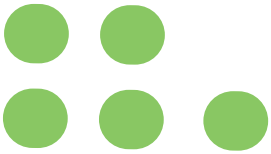
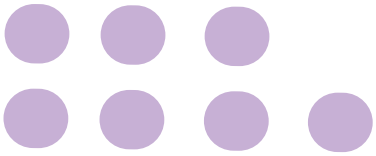
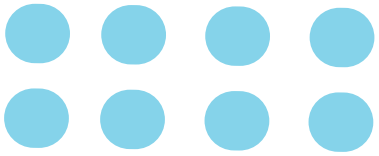
(1-4) Even and Odd Numbers.

Look at the picture.

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

- **Even number:** is the number that has pairs.
- **Odd number:** is the number that can't have pairs.

Count the blocks. Write the number. Circle odd or even.

	4	odd / even
	.....5.....	odd / even
	.....7.....	odd / even
	.....8.....	odd / even

Your Work

To find the answer, you must look at the ones digit.

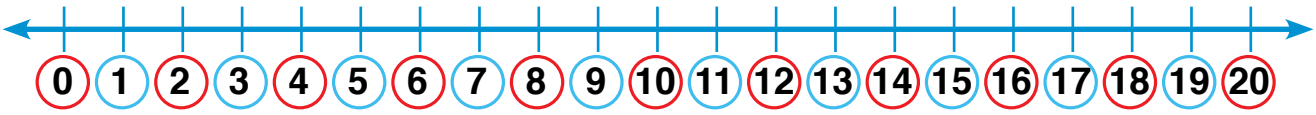
Circle the right answer (odd or even).

10	(odd / even)	21	(odd / even)
13	(odd / even)	22	(odd / even)
15	(odd / even)	16	(odd / even)
19	(odd / even)	27	(odd / even)
18	(odd / even)	24	(odd / even)

We can analyze even and odd numbers by using the numbers line.

Circle even numbers using **red** and odd numbers using **blue**.

odd number comes after even number





At home

Write in the boxes the even numbers and the odd numbers less than 10.

- **Even numbers:** 8 6 4 2 0
- **Odd numbers:** 9 7 5 3 1

(1-5) Problem solving.

1 Ammar's basketball team won the playoff this year. Their final score was a 3-digit number. There was 2 in the ones place, 5 in the tens place, and 1 in the hundreds place. What was their score?

152



2 Alaa and Mariam have rock collections. Alaa has 362 rocks and Mariam has 329 rocks. Who has the greatest collection of rocks?

Alaa 362



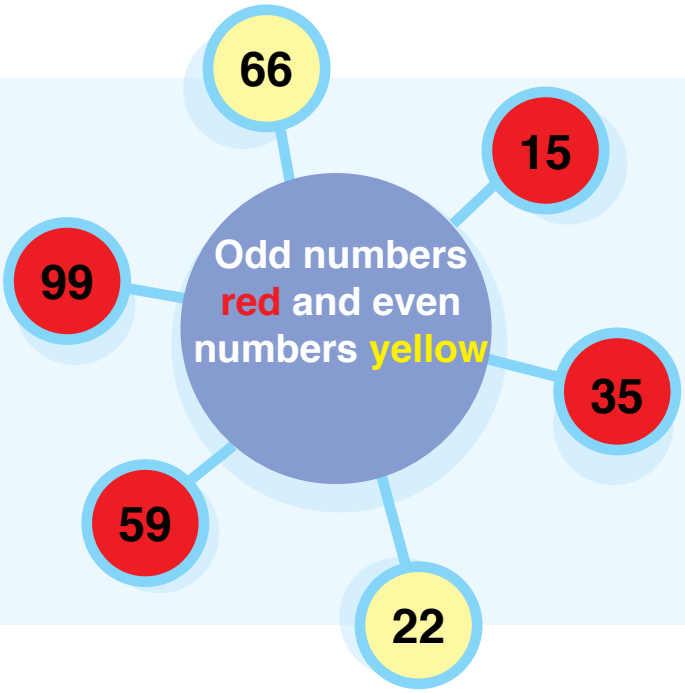
3 Lina rolled a dice and got a 5, 6, and a 3. What is the greatest number she can have with those 3-digits?

653



Show Your Turn

Color.



Place the number value.

Number	Hundreds	Tens	Ones
302	3	0	2
985	9	8	5
125	1	2	5

Write the value of the underlined numbers.

524	619	850
500	9	50

37	206	435
30	200	5

Write the numbers in words.

120 One hundred and twenty

300 Three hundred

921 Nine hundred and twenty one

505 Five hundred and Five

Write >,< or = in the ☐

554	>	455	961	=	961	854	>	513
650	>	252	581	>	521	665	>	562



At home.

Write four numbers into 3-digits, then arrange them in ascending order.

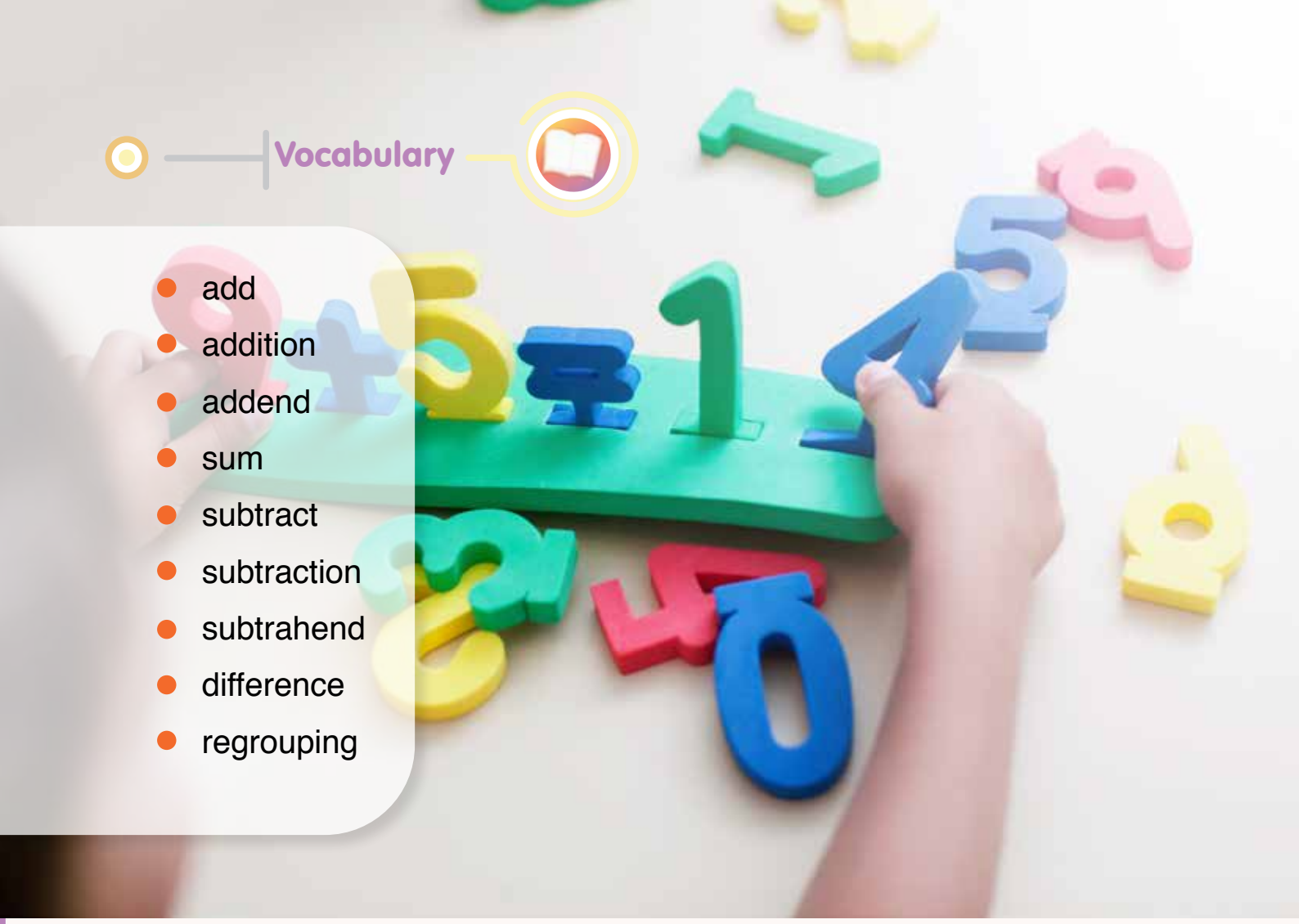
The numbers			
361	943	652	400

Ascending order			
361	400	652	943

Working with 2 and 3-Digit Numbers



Unit 2



Vocabulary

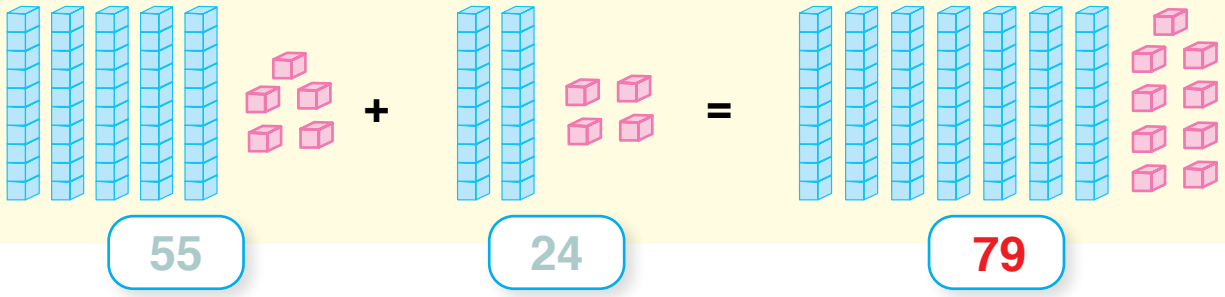
- add
- addition
- addend
- sum
- subtract
- subtraction
- subtrahend
- difference
- regrouping

Objectives

- Add 2 and 3-digit numbers without regrouping.
- Add 2 and 3-digit numbers with regrouping.
- Subtract 2 and 3-digit numbers without regrouping.
- Subtract 2 and 3-digit numbers with regrouping.

(2-1) Adding 2-Digit Numbers.

Adding numbers without regrouping.



55 + 24 = 79

55 → addend

\+

24 → addend

☐ → sum

First, add the ones

$$\begin{array}{r} 55 \\ +\ 24 \\ \hline 9 \end{array}$$

Then, add the tens

$$\begin{array}{r} 55 \\ +\ 24 \\ \hline 79 \end{array}$$

Add.

$$\begin{array}{r} 83 \\ +\ 10 \\ \hline 93 \end{array} \qquad \begin{array}{r} 59 \\ +\ 30 \\ \hline 89 \end{array} \qquad \begin{array}{r} 25 \\ +\ 41 \\ \hline 66 \end{array}$$

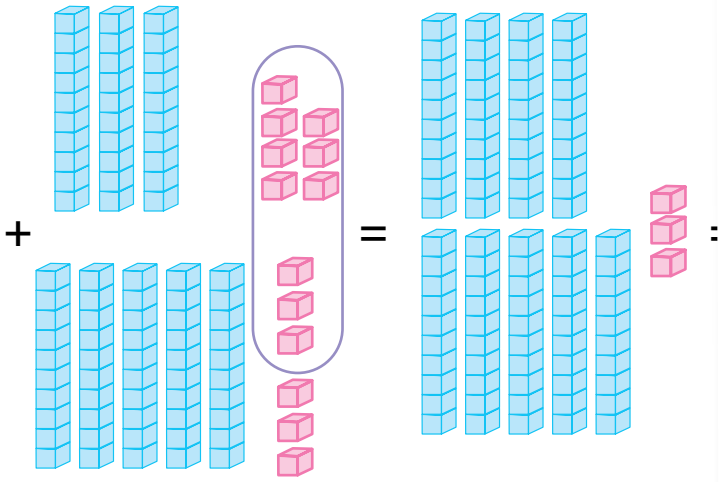
$$\begin{array}{r} 44 \\ +\ 34 \\ \hline 78 \end{array} \qquad \begin{array}{r} 26 \\ +\ 42 \\ \hline 68 \end{array} \qquad \begin{array}{r} 73 \\ +\ 24 \\ \hline 97 \end{array}$$

Adding numbers with regrouping.

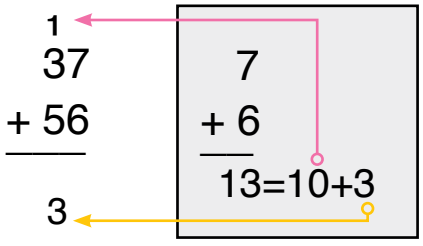
addend → 37

addend → + 56

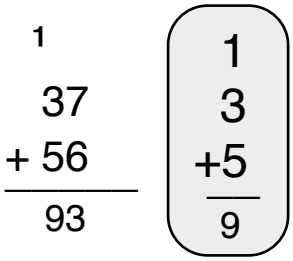
sum → 93



First add the ones



add the tens



Add.

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

Add.

(1)	(1)	(1)	(1)	(1)
7 9	4 5	1 4	2 5	1 8
+ 1 4	+ 2 6	+ 3 7	+ 4 6	+ 5 9
9 3	7 1	5 1	7 1	7 7

Find the answer.

15 + 21 = 36

26 + 59 = 85

Write two numbers with the sum (74).

39 + 35 = 74

(1)

3 9
+ 3 5
7 4

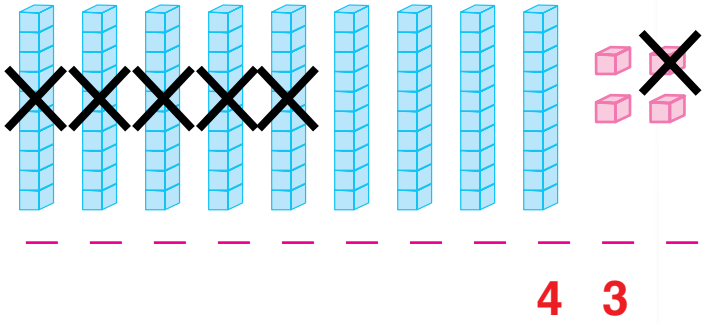
(2-2) Subtracting 2-Digit Numbers.

Subtracting numbers without regrouping.

9 4 ← minuend

- 5 1 ← subtrahend

☐ ← difference



4 3

First, subtract the ones

$$\begin{array}{r} 9\ 4 \\ -\ 5\ 1 \\ \hline 3 \end{array}$$

Then, subtract the tens

$$\begin{array}{r} 9\ 4 \\ -\ 5\ 1 \\ \hline 4\ 3 \end{array}$$

Subtract.

$$\begin{array}{r} 8\ 5 \\ -\ 5\ 2 \\ \hline 3\ 3 \end{array}$$

$$\begin{array}{r} 6\ 5 \\ -\ 1\ 1 \\ \hline 5\ 4 \end{array}$$

$$\begin{array}{r} 7\ 6 \\ -\ 5\ 4 \\ \hline 2\ 2 \end{array}$$

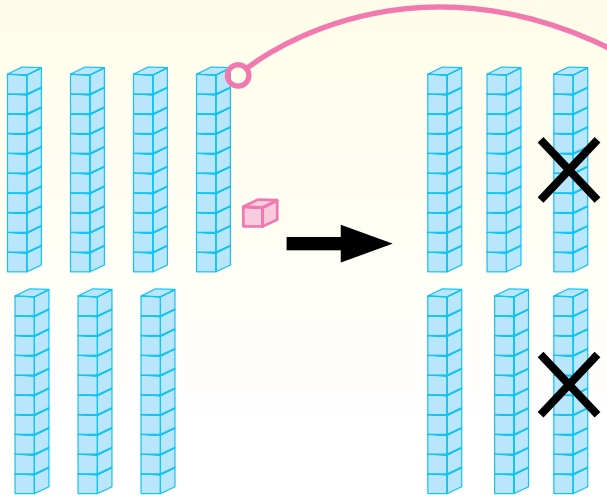
$$\begin{array}{r} 9\ 7 \\ -\ 3\ 5 \\ \hline 6\ 2 \end{array}$$

$$\begin{array}{r} 4\ 8 \\ -\ 1\ 8 \\ \hline 3\ 0 \end{array}$$

$$\begin{array}{r} 6\ 3 \\ -\ 4\ 0 \\ \hline 2\ 3 \end{array}$$

Subtracting numbers with regrouping.

$$\begin{array}{r} 7\ 1 \\ -\ 2\ 8 \\ \hline \end{array}$$



1 ten = 10 ones

4 3

First, subtract the ones

$$\begin{array}{r} {\scriptstyle 6\ 11} \\ 7\ \not{1} \\ -\ 2\ 8 \\ \hline 3 \end{array}$$

Regroup 71

71 = 70 +1

= 60 + 11

then, 11- 8=3

Then, subtract the tens

$$\begin{array}{r} {\scriptstyle 6\ 11} \\ 7\ 1 \\ -\ 2\ 8 \\ \hline 4\ 3 \end{array}$$

Find the answer.

$$\begin{array}{r} {\scriptstyle 5\ 15} \\ 6\ \not{5} \\ -\ 5\ 7 \\ \hline 0\ 8 \end{array} \qquad \begin{array}{r} {\scriptstyle 0\ 16} \\ \not{1}\ \not{6} \\ -\ 0\ 8 \\ \hline 0\ 8 \end{array} \qquad \begin{array}{r} {\scriptstyle 8\ 12} \\ \not{9}\ \not{2} \\ -\ 4\ 5 \\ \hline 4\ 7 \end{array}$$

$$\begin{array}{r} 8\ 3 \\ -\ 1\ 0 \\ \hline 7\ 3 \end{array} \qquad \begin{array}{r} 5\ 9 \\ -\ 3\ 7 \\ \hline 2\ 2 \end{array} \qquad \begin{array}{r} {\scriptstyle 5\ 15} \\ 6\ \not{5} \\ -\ 5\ 9 \\ \hline 0\ 6 \end{array}$$

Find the answer.

7 4 - 1 4 6 0	6 11 ~~7~~ ~~1~~ - 6 2 0 9	3 17 ~~4~~ ~~7~~ - 3 8 0 9

Your Work

Write two numbers with the difference of 46.

84 - 38 = 46

7 14
~~8~~ ~~4~~
- 3 8
4 6

Write two numbers with the difference of an odd number.

51 - 29 = 22

4 11
~~5~~ ~~1~~
- 2 9
2 2

(3-2) Adding and Subtracting 3-Digit Numbers.

183 + 266

First, add the ones

$$\begin{array}{r} 183 \\ +\ 266 \\ \hline \end{array} \qquad \begin{array}{r} 183 \\ +\ 266 \\ \hline 9 \end{array}$$

Second, add the tens

$$\begin{array}{r} {\scriptstyle 1} \\ 183 \\ +\ 266 \\ \hline 49 \end{array}$$

$$\begin{array}{r} 8 \\ +\ 6 \\ \hline 14 \end{array} = 10 + 4$$

Then, add the hundreds

$$\begin{array}{r} {\scriptstyle 1} \\ 138 \\ +\ 266 \\ \hline 449 \end{array}$$

Add.

$\begin{array}{r} {\scriptstyle 1} \\ 342 \\ +\ 108 \\ \hline \end{array}$ 450	$\begin{array}{r} {\scriptstyle 1} \\ 224 \\ +\ 125 \\ \hline \end{array}$ 349	$\begin{array}{r} 432 \\ +\ 313 \\ \hline \end{array}$ 745
$\begin{array}{r} {\scriptstyle 1\ 1} \\ 577 \\ +\ 384 \\ \hline \end{array}$ 961	$\begin{array}{r} {\scriptstyle 1\ 1} \\ 799 \\ +\ 138 \\ \hline \end{array}$ 937	$\begin{array}{r} {\scriptstyle 1} \\ 801 \\ +\ 99 \\ \hline \end{array}$ 900

Subtract 651 - 347

First, subtract the ones

$$\begin{array}{r} 651 \\ -\ 347 \\ \hline \end{array}$$

$$\begin{array}{r} {}^{4}\not{6}\not{5}^{11}\not{1} \\ -\ 347 \\ \hline 4 \end{array}$$

Second, subtract the tens

$$\begin{array}{r} {}^{4}6\not{5}^{11}\not{1} \\ -\ 347 \\ \hline 04 \end{array}$$

Then, subtract the hundreds

$$\begin{array}{r} {}^{4}\not{6}\not{5}^{11}\not{1} \\ -\ 347 \\ \hline 304 \end{array}$$

Subtract.

$$\begin{array}{r} {}^{2}\not{3}\not{2}^{11}\not{1}^{15}\not{5} \\ -\ 167 \\ \hline \end{array}$$

158

$$\begin{array}{r} 232 \\ -\ 121 \\ \hline \end{array}$$

111

$$\begin{array}{r} {}^{5}\not{6}^{13}\not{3}^{14}\not{4} \\ -\ 477 \\ \hline \end{array}$$

167

$$\begin{array}{r} {}^{7}9\not{8}^{12}\not{2} \\ -\ 409 \\ \hline \end{array}$$

573

$$\begin{array}{r} 737 \\ -\ 480 \\ \hline \end{array}$$

257

$$\begin{array}{r} 999 \\ -\ 876 \\ \hline \end{array}$$

123

Find the answer.

77 + 62 = 139	64 + 31 = 95	59 - 47 = 12	80 - 70 = 10
84 - 14 = 70	108 - 72 = 36	160 - 98 = 62	103 - 83 = 20
	42 + 73 = 115	37 + 89 = 126	400 - 257 = 143

(2-4) Problem Solving.

1 Adam read 29 pages on Saturday and 19 pages on Sunday. How many more pages did he read on Saturday?

$$29 - 19 = 10$$

2 Rita sold 117 apples, 113 oranges and 197 pears. How many pieces of fruit did she sell altogether?

$$117 + 113 + 197 = 427$$

3 There are 62 elephants in the herd. 42 are females. How many males are in the herd?

$$62 - 42 = 20$$

4 Rita had 13 marbles. she gave 7 marbles to Tony. How many marbles does Rita have left?

$$13 - 7 = 6$$

5 There are 17 students present in class 6T. 13 left early for sports. How many students are left in the room?

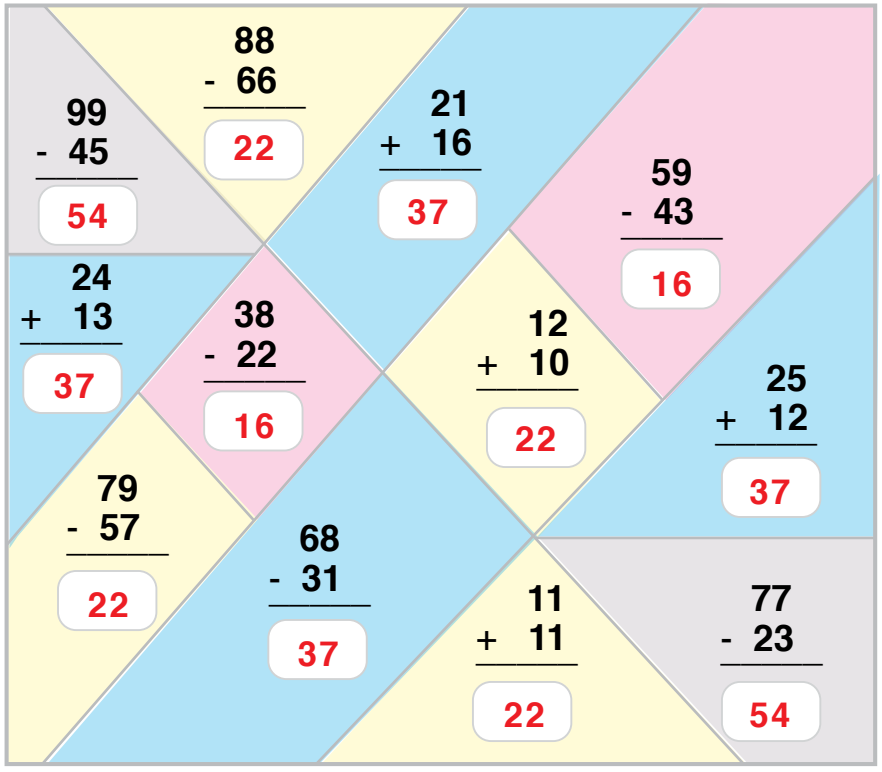
$$17 - 13 = 04$$

6 Jemma had 74 coins. She spent 20 coins on a football. How many coins does she have left?

$$74 - 20 = 54$$

Show Your Turn

Add or subtract. Use the key to color in the spaces.



16	Pink
22	Yellow
37	Blue
54	Gray

Multiplication and Division.



Unit 3



Vocabulary

- multiplication
- multiply
- multiplication table
- repeated addition
- product
- division
- divide
- divisor
- dividend
- quotient

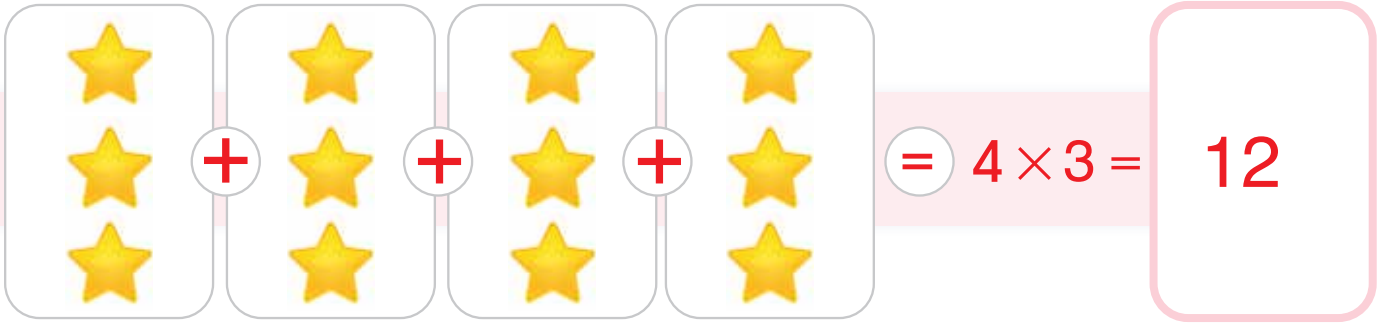
Objectives

- Explain the relationship between multiplication and addition.
- Practice multiplication facts up to 5×10.
- Explain the relationship between division and multiplication.
- Define dividend, divisor, and quotient.
- Perform simple division exercises.



(3-1) Understanding Multiplication.





Multiplication is a repeated addition.

Count and write the number.



5 + 5 + 5 + 5 = 20



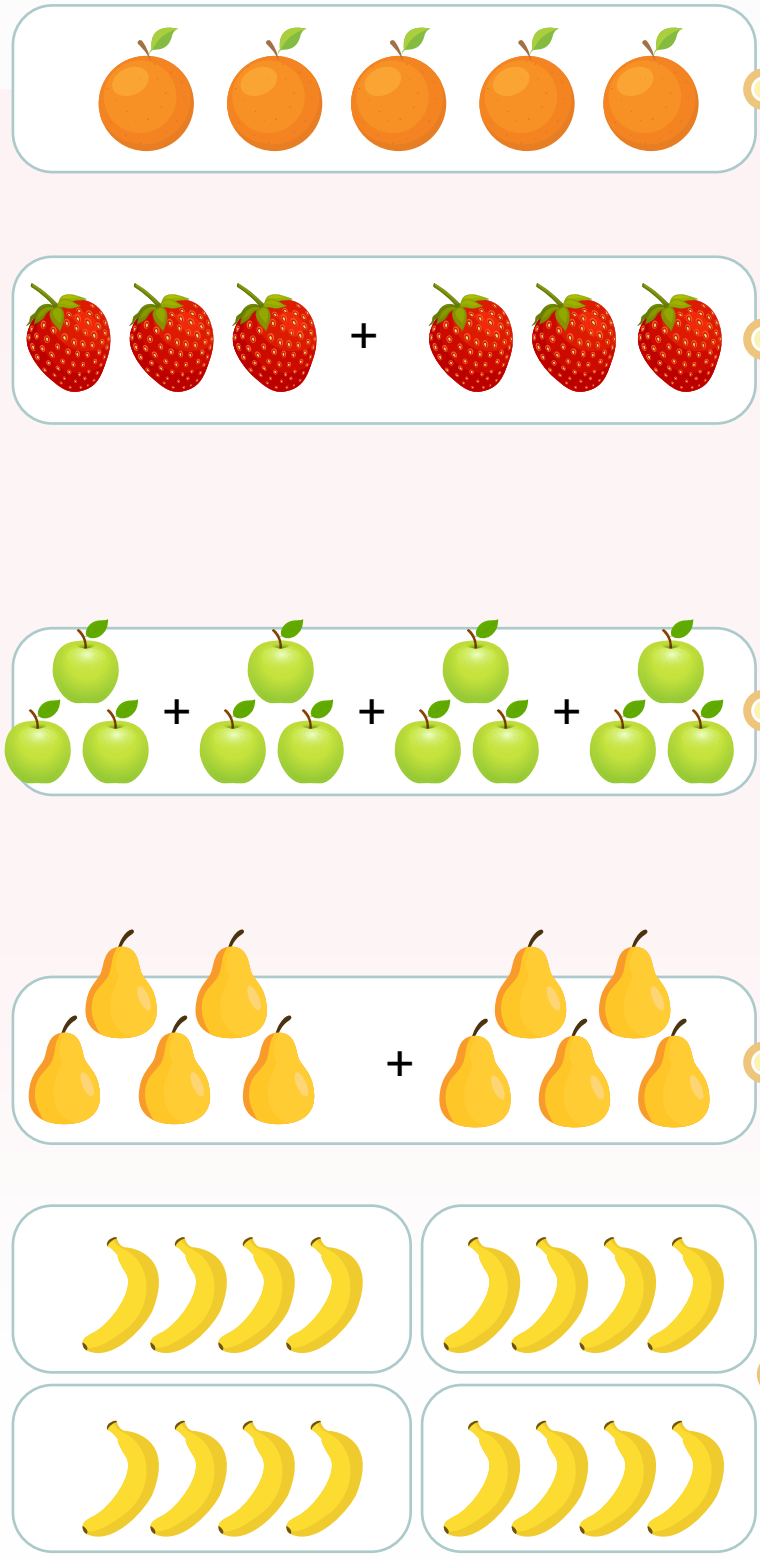
Or 4 × 5 = 20



6 + 6 = 12

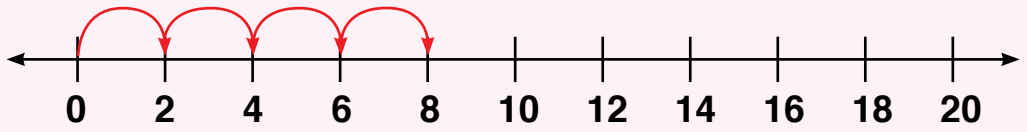
Or 2 × 6 = 12

Match.

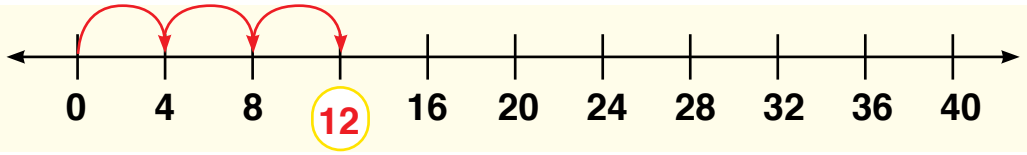


Use the numbers line to find.

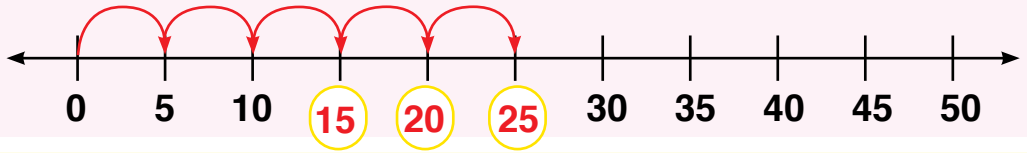
$4 \times 2 =$ **8**



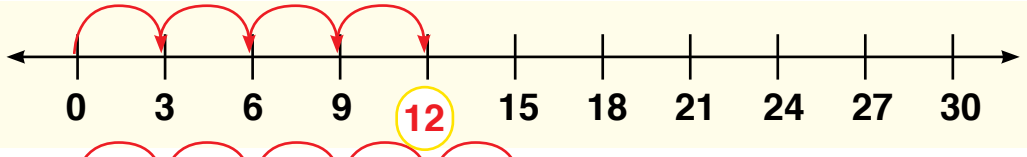
$3 \times 4 =$ **12**



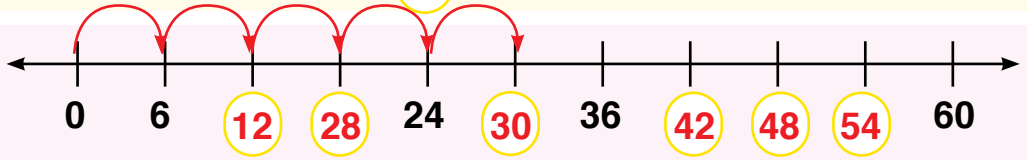
$5 \times 5 =$ **25**



$4 \times 3 =$ **12**



$5 \times 6 =$ **30**



Multiply.

$$\begin{array}{r} 3 \\ \times\ 6 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 6 \\ 6 \\ +\ 6 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 2 \\ \times\ 9 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 2\ 2\ 2\ 2\ 2\ 2\ 2\ 2\ 2 \\ +\ \ \ \ \ \ \ \ 2 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 5 \\ \times\ 1 \\ \hline 5 \end{array}$$

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

Your Work

Draw the story of (3×9).

$3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 27$

Talk about the difference between 4×2 and 2×4.

$4 + 4 = 8$

$2 + 2 + 2 + 2 = 8$

(3-2) Multiplication up to 5×10.

We can memorize the multiplication facts for any number by studying the multiplication table.

Multiplication Table

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50

4 → find the 4th row.

×7 → find the 7th column.

28 → the product.

Circle the right answer.

$3 \times 3 =$	
9	6

$3 \times 8 =$	
13	**24**

$4 \times 9 =$	
32	**36**

$5 \times 7 =$	
35	30

Fill in the blanks.

$4 \times 5 = 20$

$3 \times 9 = 27$

$3 \times 10 = 30$

$2 \times 4 = 8$

Complete the multiplication table.

×1	×2	×3	×4	×5
1×1=1	1×2=2	1×3=3	1×4=4	1×5=5
2×1=2	2×2=4	2×3=6	2×4=8	2×5=10
3×1=3	3×2=6	3×3=9	3×4=12	3×5=15
4×1=4	4×2=8	4×3=12	4×4=16	4×5=20
5×1=5	5×2=10	5×3=15	5×4=20	5×5=25
6×1=6	6×2=12	6×3=18	6×4=24	6×5=30
7×1=7	7×2=14	7×3=21	7×4=28	7×5=35
8×1=8	8×2=16	8×3=24	8×4=32	8×5=40
9×1=9	9×2=18	9×3=27	9×4=36	9×5=45
10×1=10	10×2=20	10×3=30	10×4=40	10×5=50

Your Work

Draw a multiplication story of the number (30)
Discuss with your classmate.

$3 \times 10 = 30$

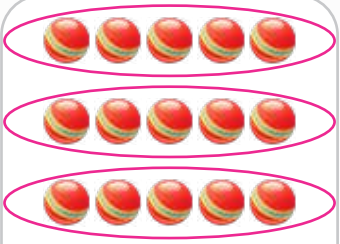
$3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30$

(3-3) Understanding Division.

If we want to distribute the number 15 to three equal groups:



15 is the number of all:



3 is the number of groups

= 5

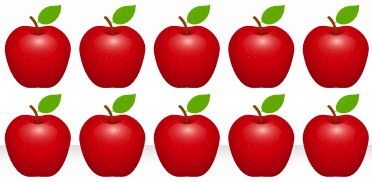
5 is the number in each group

Learn:

15 dividend
3 divisor
5 quotient

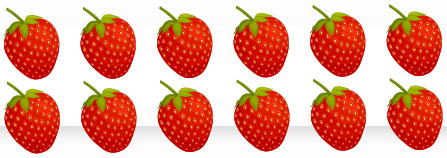
So → $15 \div 3 = 5$

Draw, then write.



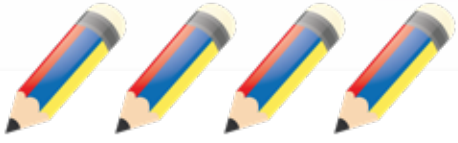


$10 \div 2 = 5$





$12 \div 3 = 4$





$4 \div 4 = 1$





$4 \div 1 = 4$

Fill in the blank.

12 ÷ 2 =	6	Since	2 ×	6	=	12
16 ÷ 4 =	4	Since	4 ×	4	=	16
18 ÷ 2 =	9	Since	2 ×	9	=	18
24 ÷ 3 =	8	Since	3 ×	8	=	24

Divide.

8 ÷ 2 = 4	8 ÷ 4 = 2	10 ÷ 5 = 2
10 ÷ 2 = 5	15 ÷ 3 = 5	15 ÷ 5 = 3
14 ÷ 2 = 7	14 ÷ 7 = 2	16 ÷ 2 = 8
16 ÷ 8 = 2	35 ÷ 5 = 7	5 ÷ 1 = 5
9 ÷ 1 = 9	3 ÷ 1 = 3	8 ÷ 1 = 8

Your Work

Tell a story showing (32 ÷ 4).

32 ÷ 4 = 8 Since 4 × 8 = 32

(3-4) Problem Solving.

1 Rami visited a store to buy 2 flash drives. They were priced at 4 JDs each. What is the total price of both flash drives?



$2 \times 4 = 8$

2 Leen has 15 oranges. If she divides them equally in 3 groups, how many oranges will each group have?



$15 \div 3 = 5$

3 If there are 40 children waiting to go on a rollercoaster and each car can hold 5 people. How many cars will be filled?



$40 \div 5 = 8$

4 During a practice session, Shadi swam an average of 9 laps per session, if he attended 4 practice sessions, how many laps will he be able to cover on average?



$9 \times 4 = 36$

Show Your Turn

Fill in the blanks.




= 6

3 + 3 = 6 Or 3 × 2 = 6



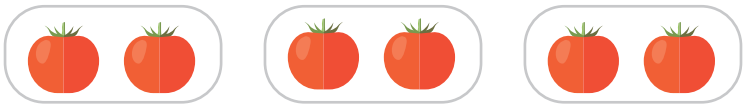

= 12

6 + 6 = 12 Or 6 × 2 = 12

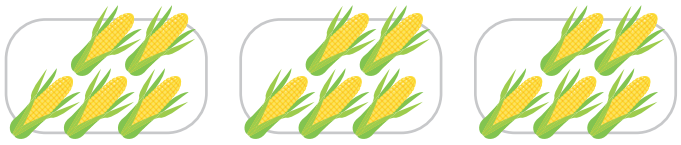
Find the product.

3 × 4 = 12	3 × 9 = 27	4 × 6 = 24	5 × 8 = 40
2 × 6 = 12	1 × 8 = 8	5 × 6 = 30	4 × 9 = 36

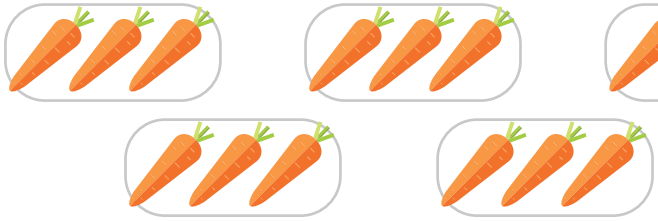
Write the division sentence.



6 ÷ 3 = 2



15 ÷ 3 = 5



15 ÷ 5 = 3



12 ÷ 4 = 2



4 ÷ 2 = 2



At home.

Complete.

3 × 7 =	21	7 + 7 + 7 =	21
4 × 2 =	8		
6 × 4 =	24	6 + 6 + 6 + 6 =	24

Write 3 division sentences that have the same product.

5 × 4 = 20	6 × 3 = 18	10 × 4 = 40
5 + 5 + 5 + 5 = 20	6 + 6 + 6 = 18	10 + 10 + 10 + 10 = 40

Measurement



Unit 4

Vocabulary

- length
- meter (m)
- centimeter(cm)
- time
- digital clock
- analog clock
- hour
- minutes
- half past
- calendar
- months of the year
- month
- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December
- days of the week
- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday



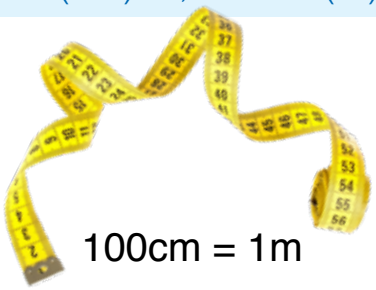
Objectives

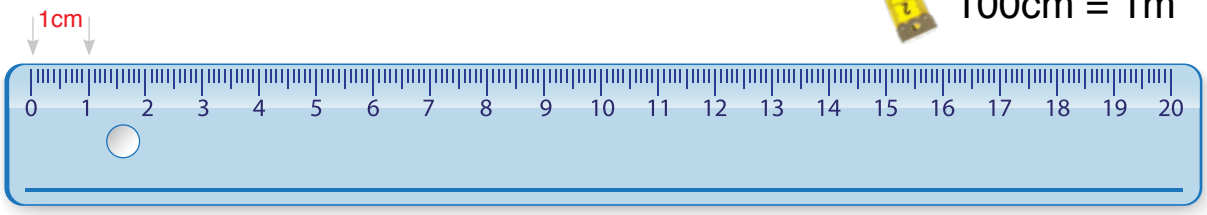
- Name the standard metric unit of length.
- Estimate and measure the length of objects in centimeters and meters.
- Differentiate between analog and digital clocks.
- Tell the time.
- Recognize the order of the days of the week, and the months of the year.

(4-1) Length.

Length: is a measure of how long an object is, or the distance between two points.The unit of measuring length is centimeters (cm) or, meters (m)

Length measurement units.





Circle the appropriate length unit to measure each object.





book

m (cm)

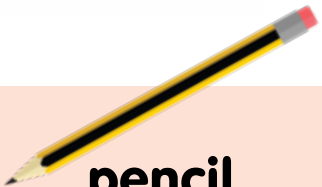


door

(m) cm

sharpner

m (cm)

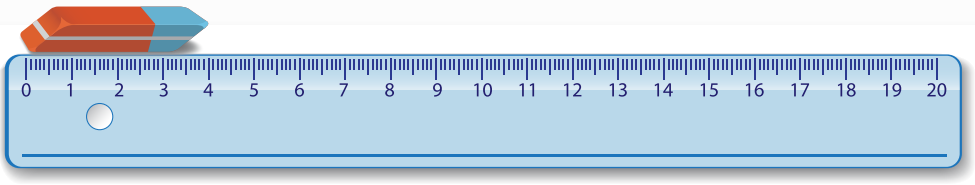


pencil

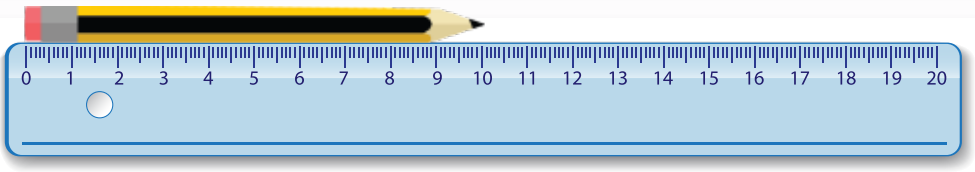
m (cm)

Measure each object to the nearest (cm).

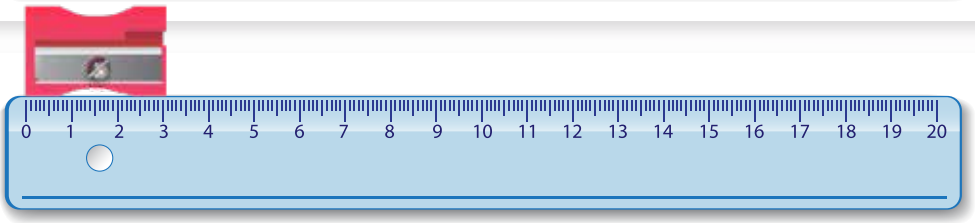
4 cm



10 cm



3 cm



Estimate and circle the length in meters for each picture.



70 m **2 m**



100 m **10 m**

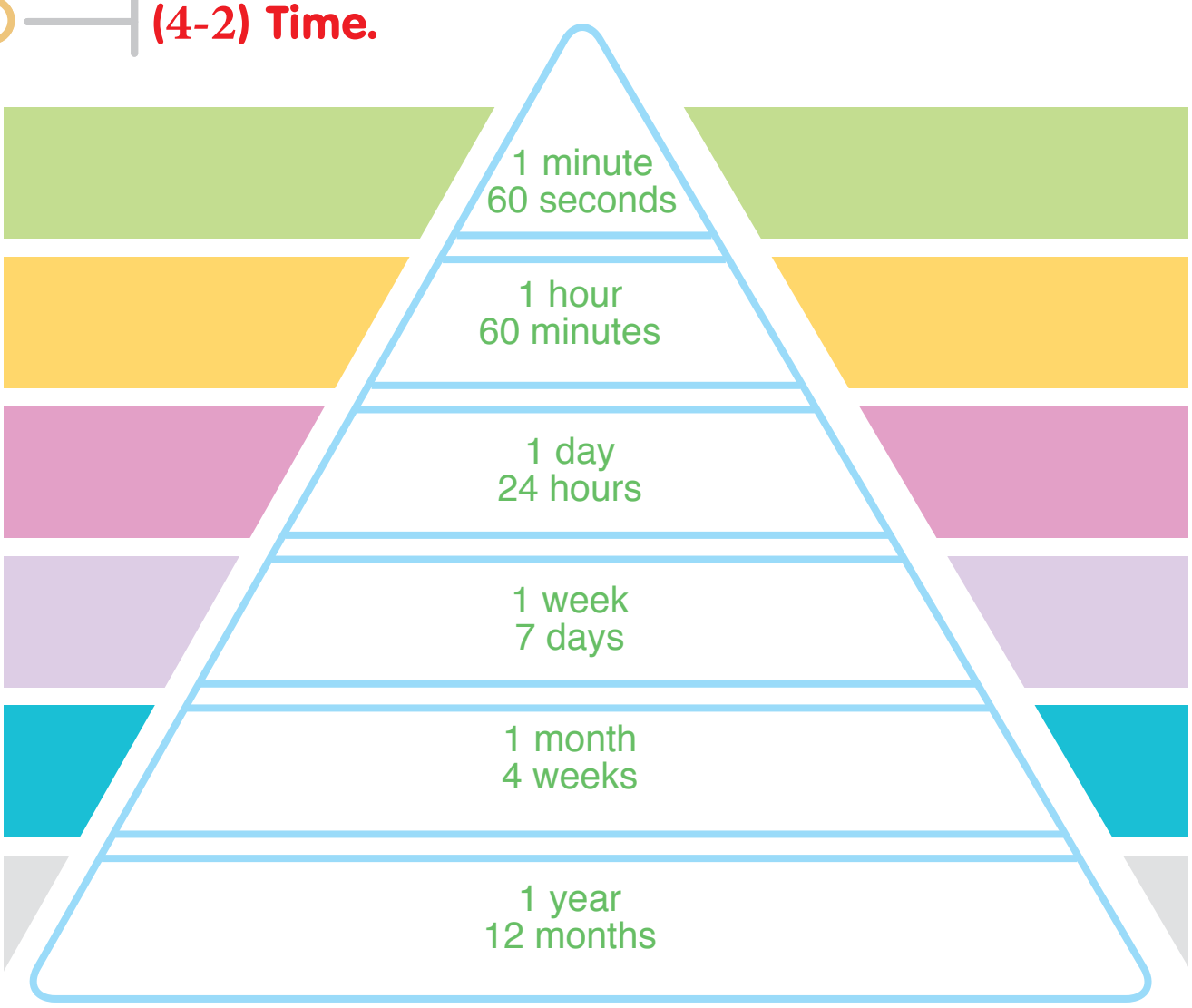


20 m **3 m**

Write the length of your.

Classroom	English book
5 m	20 cm

(4-2) Time.



Circle the right answer.

1	has 12 months:	1 year	1 day
2	has 4 weeks:	1 year	1 month
3	has 24 hours:	1 day	1 week
4	has 60 minutes:	1 week	1 hour

Clocks give us time in hours and minutes.

There are 2 types of clocks: analog and digital

Analog clock

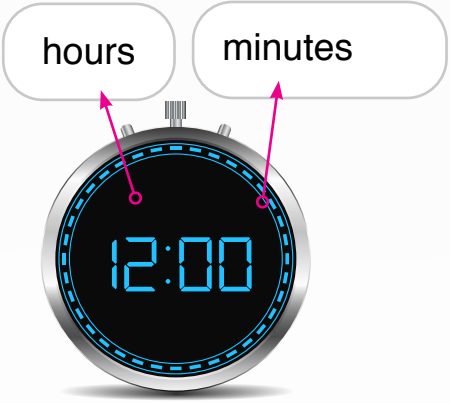
4 o'clock





half past 4

Digital clock



12 o'clock



half past 12

Circle the time.



8 o'clock

half past 8



9 o'clock

half past 9



10 o'clock

half past 9



3 o'clock

half past 3

Match.







It's half past 9

It's 5 o'clock

It's half past 1

Write the time in each clock.



It's half past 2



It's 11 o'clock



It's 3 o'clock

(4-3) Calendar Months of the Year.

- Months of the year

Calendar 2018



- We have 12 months in the year starting with January and ending with December.
- We have 7 days in the week.

Write the missing month.

June ..... July ..... August

September ..... October ..... November

Write the missing letter.

J.u.ne	M.a.y	Apr..i..l	.M.arch
Octo..b..er	.F..ebruary	Dece..m..ber	

Write the months of the year in a correct order.

January	March	July
October	August	February
June	December	November
April	September	May

1	January	2	February	3	March
4	April	5	May	6	June
7	July	8	August	9	September
10	October	11	November	12	December

Use the calendar below to answer the following questions.

April 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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					

1 The first day of April is ……Sunday……

2 April is the ……Fourth…(seventh, fourth) month of the year.



At home.

Write your favorite month .....October.....

Write your birth month .....May.....

(4-4) Days of the Week.

- **Yesterday:** is the day before today.
- **Tomorrow:** is the day after today.



Write the correct day.

Yesterday	Today	Tomorrow
Thursday	Wednesday	Thursday
Sunday	Monday	Tuesday
Wednesday	Thursday	Friday
Monday	Tuesday	Wednesday
Saturday	Sunday	Monday
Friday	Saturday	Sunday
Thursday	Friday	Saturday

Look at part of Maha's work schedule and answer the questions.

Month: March	Time	Work
Sunday	6 o'clock	Wake up
Monday	7 o'clock	Go to school
Tuesday	half past 2	Back to home
Wednesday	4 o'clock	Do homework
Thursday	6 o'clock	Show T.V
	7 o'clock	Help my mother
	half past 8	Go to sleep

- The month is ……March……..

  This schedule is for the days

  1.Sunday 2 .Monday 3 Tuesday. 4Wednesday 5.Thursday

- The 2 days that are not in the schedule are?

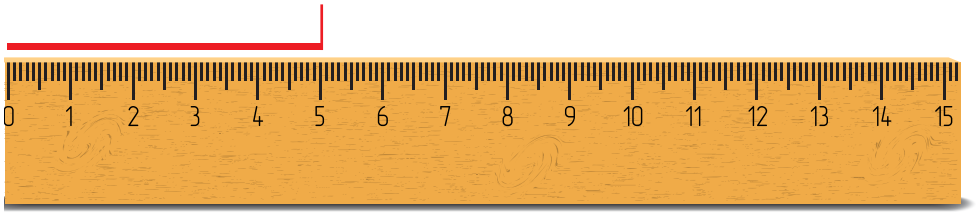
  ……Friday…… , ……Saturday……

- How much time does Maha spend on watching TV?

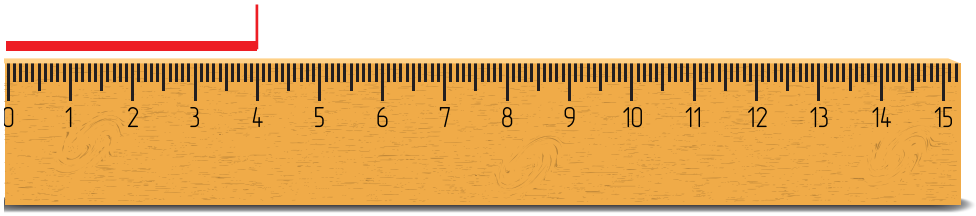
  ……1 hour……

Show Your Turn

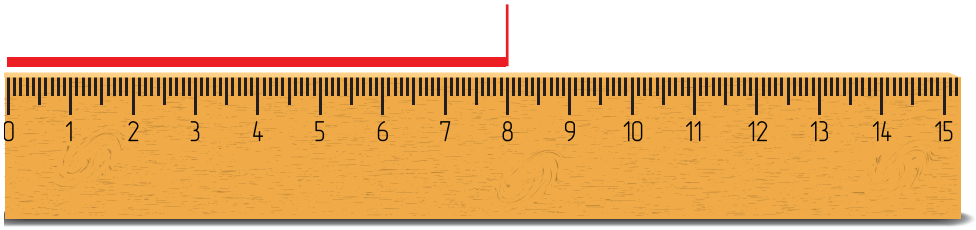
Write the length.



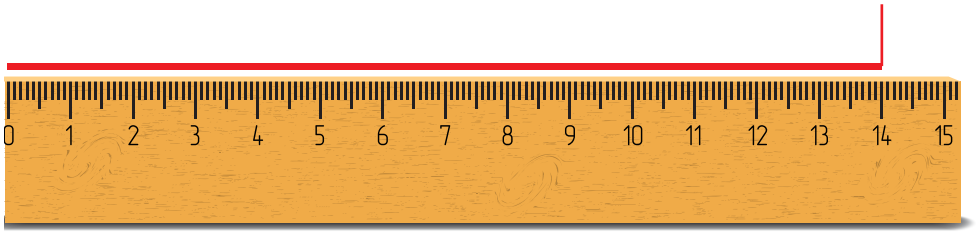
5



4



8



14

Estimate how many meters?



24m | 1m



2m | 20m



100m | 5m

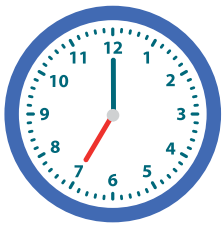
Circle the correct answer.

1. The day next to saturday is: (Sunday / Monday)
2. The year has: (10 months / 12 months)
3. An hour equals: (45 minutes / 60 minutes)
4. January is: (the first month of the year) / (the last month of the year)
5. October comes after: (September / November)

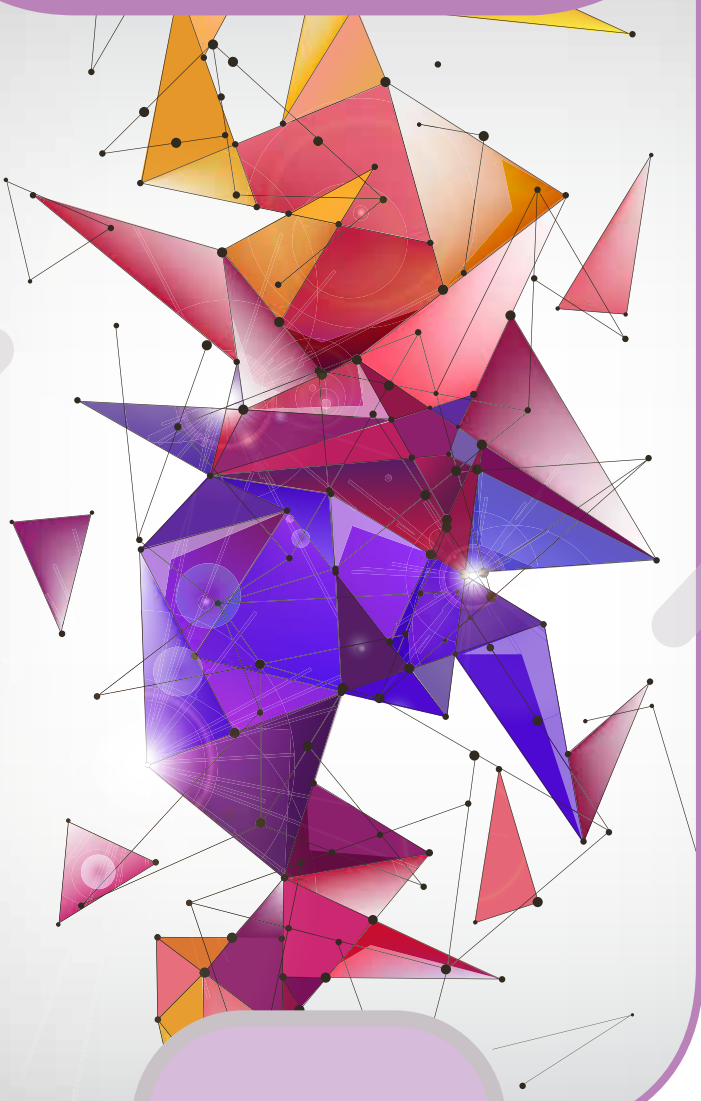


At home

Draw your own clock for.

Wake up	Go to sleep
	
7 O'clock	9 O'clock
Am	Pm

Geometry and Patterns



Unit 5

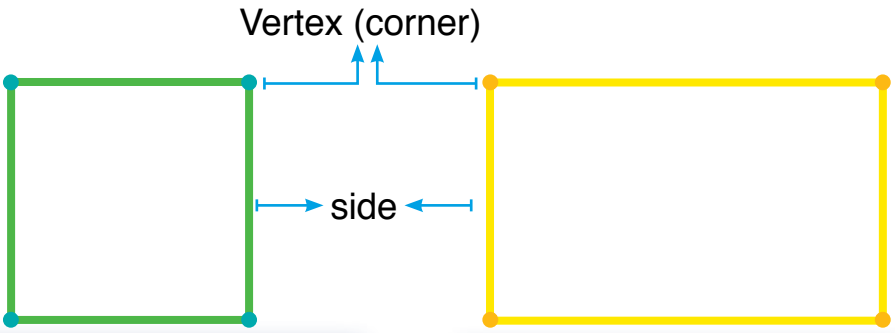
Vocabulary

- shapes
- side
- vertex (corner)
- fraction
- equal parts
- whole
- part
- half
- halves
- one-third
- one-fourth (quarter)
- numerator
- denominator
- pattern

Objectives

- Find the number of sides, vertices of a two dimensional shape.
- Define what a fraction is.
- Recognize the numerators and denominators.
- Analyze patterns.
- Recognize types of patterns.

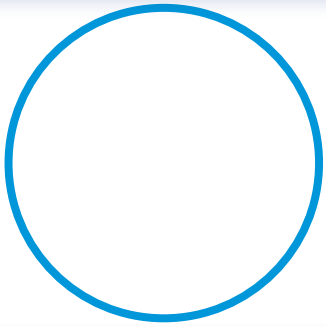
(5-1) Shapes.



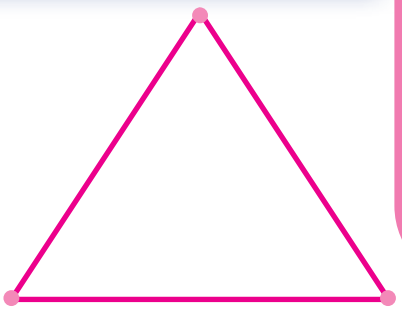
A side is a straight
Vertex **(corners):** where two sides meet.

Square
4 sides, 4 vertices

Rectangle
4 sides, 4 vertices

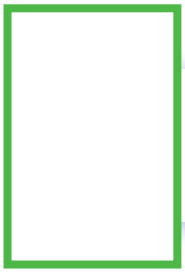


Circle
no sides, no vertex



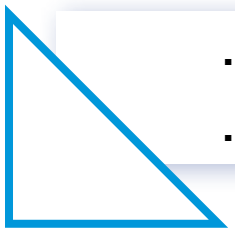
Triangle
3 sides, 3 vertices

Write the number of sides and vertices (corners).

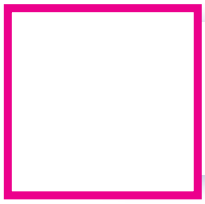


4 sides
4 vertices

3 sides
3 vertices

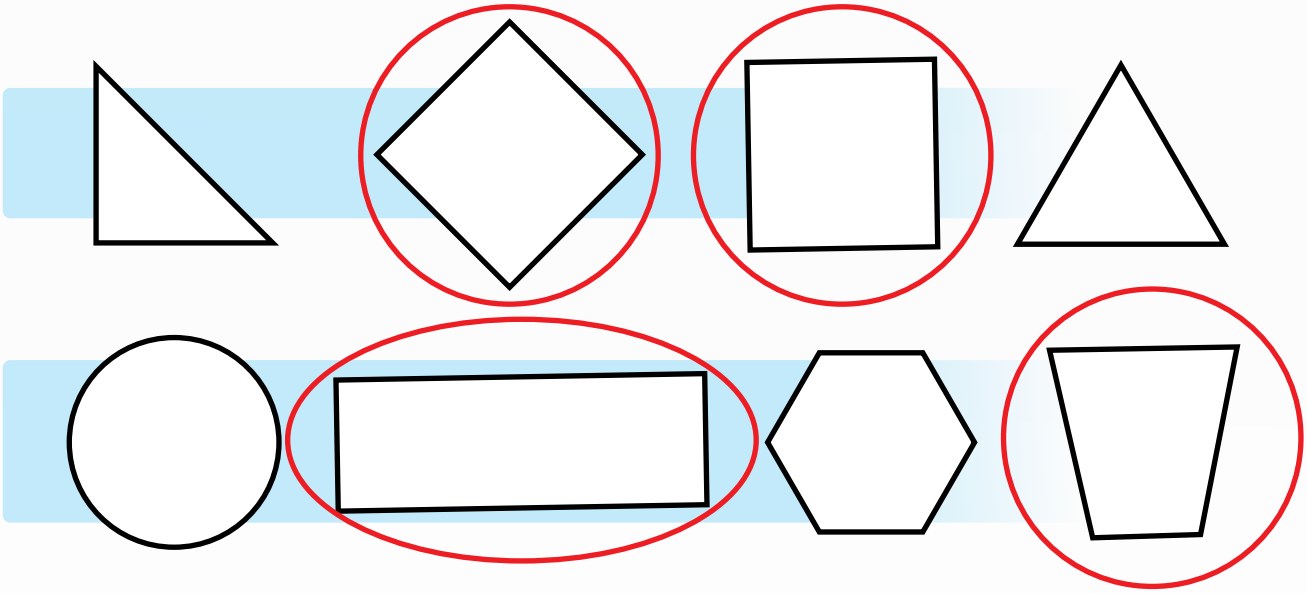


3 sides
3 vertices



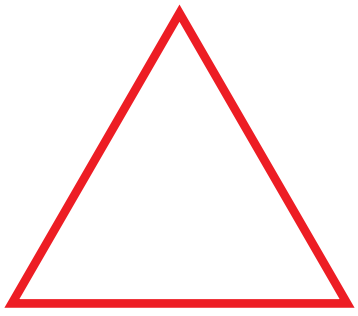
4 sides
4 vertices

Circle the shapes that have 4 sides.



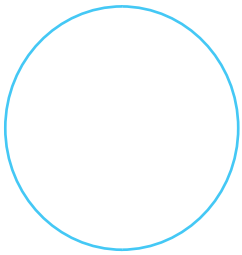
Your Work

"I am a shape with 3 straight sides and 3 vertices, who am I ?" Draw to solve.

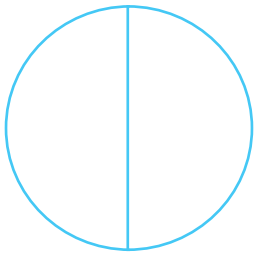


Triangle

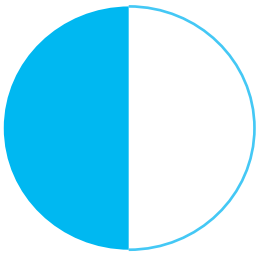
(5-2) Fractions.



1 whole



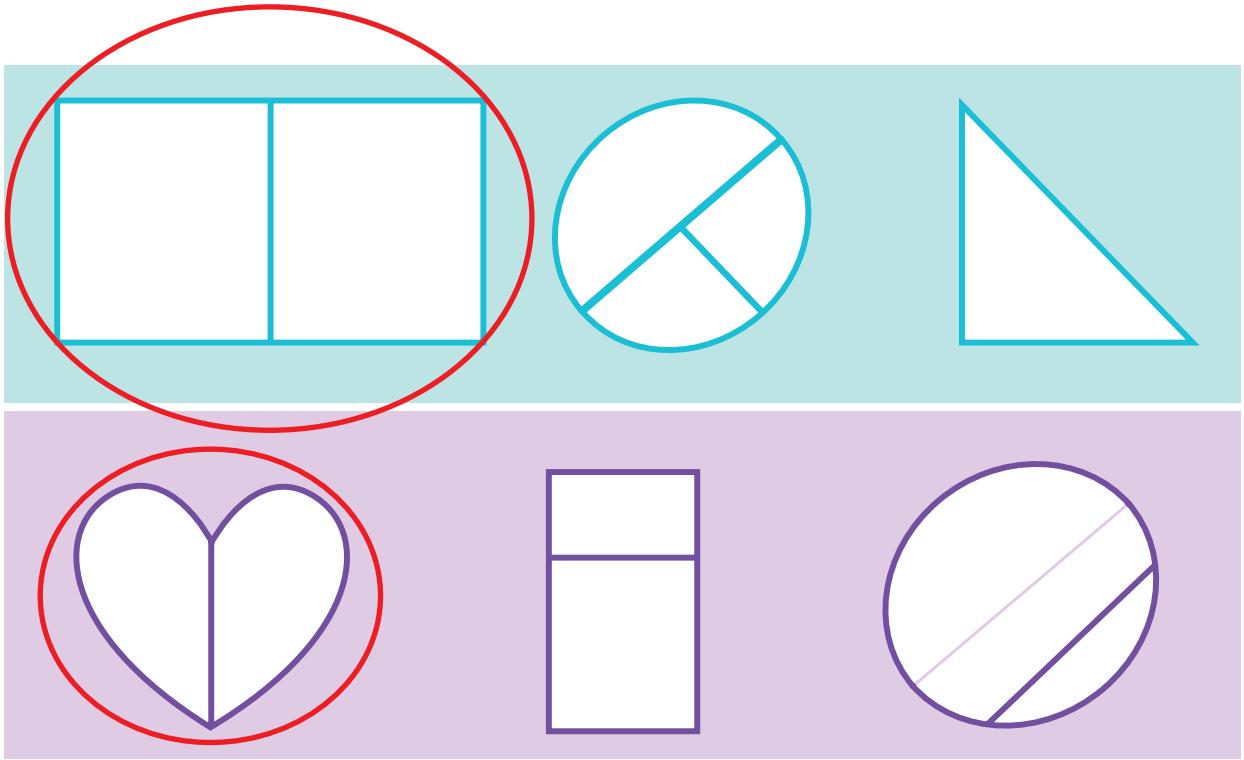
2 equal part
2 halves



one half of equal parts = $\frac{1}{2}$

half = $\frac{1}{2}$ → Numerator (parts shaded of a whole)
→ Denominator (parts in all)

Circle the shapes that show halves.





whole



3 equal part



one third of 3 equal parts

One third = $\frac{1}{3}$

1 → Numerator (parts shaded of a whole)

3 → Denominator, (parts in all)



1 whole



4 equal parts



one fourth of 4 equal parts

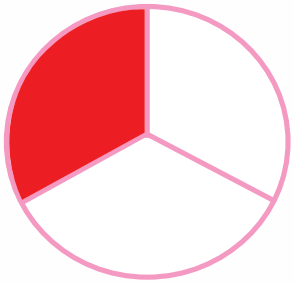
One fourth (quarter) = $\frac{1}{4}$

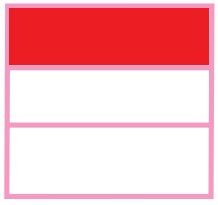
1 → Parts shaded of the whole

4 → Denominator (parts in all)

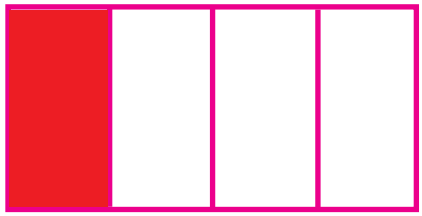
Color $\frac{1}{3}$ of each shape.

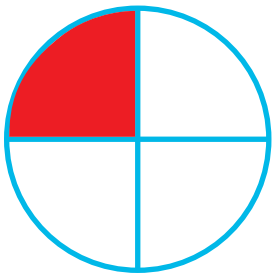


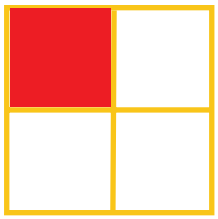




Color $\frac{1}{4}$ of each shape.





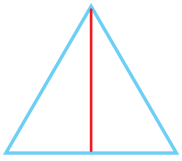


Complete.

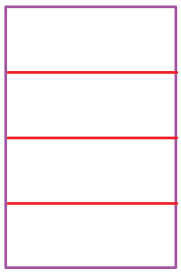
Fraction	Numerator	Denominator
$\frac{1}{4}$	1	4
$\frac{1}{2}$	1	2
$\frac{1}{3}$	1	3

Your Work

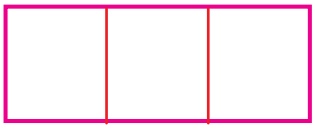
Draw a line to divide this shape in half $\frac{1}{2}$



Draw a line to divide this shape in fourth $\frac{1}{4}$

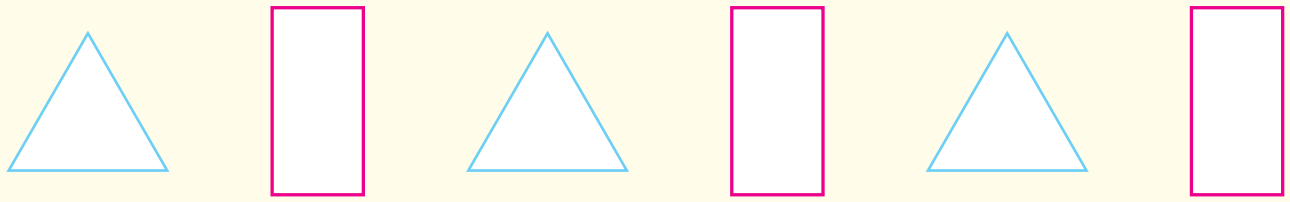


Draw a line to divide this shape in thirds $\frac{1}{3}$



(5-3) Patterns.

A pattern: is a repeated design that is in an ordered set of numbers, shapes or other mathematical objects that are arranged according to a rule.





Complete the pattern.



(5-4) Problem Solving

Amal wants to save 2 coins daily for one week.
How many coins will she save at the end of the week?

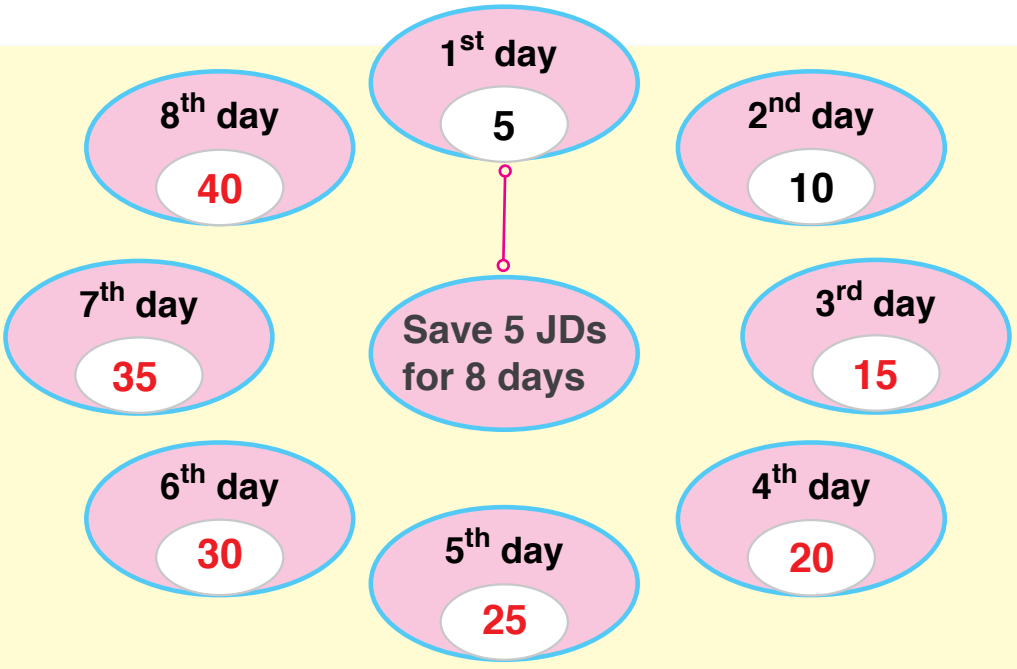
Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday
2	+2	4	+2	6	+2	8	+2	10	+2	12	+2	14

Note that if Sally adds two coins everyday.
Sally can collect 14 coins at the end of the week.

How many coins will she save at the end of three weeks?

She will have 14 coins

Find how many coins Tala can collect?



so, Tala collects 40 JDs at the end of 8 days.

Show Your Turn

Complete the number patterns.

+1	1	2	3	4	5	6	7	8	9
+2	2	4	6	8	10	12	14	16	
+3	3	6	9	12	15	18	21	24	27
+2	1	3	5	7	9	11	13	15	17

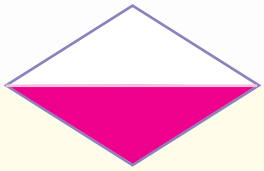
Write the fractions.



$\frac{1}{3}$

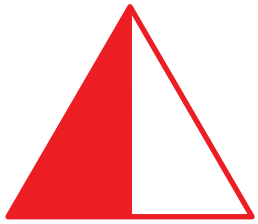


$\frac{1}{4}$



$\frac{1}{2}$

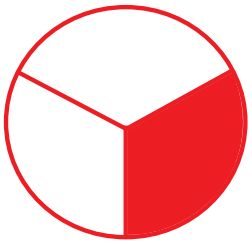
Draw according to the fractions below.



$\frac{1}{2}$



$\frac{1}{4}$



$\frac{1}{3}$


Spark
of
Math