WORLD'S KEY

COMMON CORE State Standards

Mathematics

LEVEL 2



WORLD'S KEY

MATHEMATICS

LEVEL 2

2023



شركة البشرى للتربية والعلوم
المدارس الدولية

إن تقدم الأمم يعتمد على تقدم العلوم فيها. ونحن نفتخر بأننا في صلب هذه المهمة, خاصة بأن دورنا يعتمد بشكل أساسي على تطوير ركائز العملية التعليمية في المنهاج والبرامج والتدريب وتأهيل المدارس لتحصل على اعتماد مدرسة دولية.

إن شركة البشرى بالتعاون مع WORLD'S KEY أنتجت سلسلة من المناهج ضمن المعايير الدولية التي تراعي واقع بيئتنا ومجتمعنا, مع إضافة التعليم الإلكتروني لدعم العملية التعليمية وتحويلها من طور التلقين إلى طور الإبداع و التفاعل وتنمية المهارات.

The progress of nations depends on their advancement in sciences and adherence to higher values. We, Al-Bushra Company for Education and Sciences, are proud to be at the heart of this task. We play a major role in developing the educational process in all our curricula, programs, and training along with qualifying schools to get international school accreditation.

We at Al-Bushra Company for Education and Sciences, in collaboration with World's Key publishers, have produced a series of programs aligned with the approved international standards. These programs consider the reality of our environment and community with the integration of e-learning facilities that support the educational process and transform it from the stage of indoctrination to that of creativity, interaction, and skills development.

General Director
A. Tarhini

حقوق الطبع والنشر © 2023
شركة البشرى للتربية والعلوم

لا يجوز شرعاً وقانوناً استنساخ أو نقل أو توزيع أو نسخ أو تصوير أو حفظ أي جزء من هذا المنشور بأي شكل أو وسيلة إلكترونية, ميكانيكية أو غير ذلك دون إذن خطي مسبق من شركة البشرى للتربية والعلوم.
يرجى عدم المشاركة أو تشجيع قرصنة حقوق الطبع والنشر التي تنتهك حقوق الشركة.
يسمح بشراء الإصدارات المعتمدة الشرعية من المصدر فقط.

Copyright ©2023 Al-Bushra
All rights reserved.

No part of this publication may be reproduced, transmitted, scanned, distributed, copied, saved, or stored in any form or by any means: electronic, mechanical, photocopying, recording, or otherwise without prior written permission from Al-Bushra Company for Education and Sciences. Please, do not participate in or encourage the piracy of copyrighted material that violates the company's rights.
Purchase only authorized editions.

Program Producer **A. Tarhini**

Authors **M. Sbeity, M. Haidar, Z. Al-Sabouri, M. Matar**

Co-Authors **R. Hamdan, S. Khayat, M. Tarhini, L. Jaber**

Editors **Z. Bzeih, G. Shouman, A. Mshawrab, Z. Sleem**

info@al-bushra.net www.al-bushra.net

MATHEMATICS

TABLE OF CONTENTS

6	LESSON 1	TENS AND ONES
12	LESSON 2	HUNDREDS, TENS, AND ONES
18	LESSON 3	PLACE VALUE
24	LESSON 4	COMPARE 3-DIGIT NUMBERS
30	LESSON 5	ADDITION AND SUBTRACTION FACTS
36	LESSON 6	EVEN AND ODD NUMBERS
42	LESSON 7	ARRAYS AND REPEATED ADDITION
48	LESSON 8	NUMBER PATTERNS TO 1000
54	LESSON 9	BREAK APART 2-DIGIT NUMBERS TO ADD
60	LESSON 10	ADD 2-DIGIT NUMBERS WITH REGROUPING
66	LESSON 11	ADD MORE THAN TWO 2-DIGIT NUMBERS
72	LESSON 12	BREAK APART ONES TO SUBTRACT
78	LESSON 13	BREAK APART NUMBERS TO SUBTRACT
84	LESSON 14	SUBTRACT 2-DIGIT AND 1-DIGIT NUMBERS
90	LESSON 15	SUBTRACT 2-DIGIT NUMBERS
96	LESSON 16	USE ADDITION TO SUBTRACT
102	LESSON 17	ADD 3-DIGIT NUMBERS
108	LESSON 18	SUBTRACT 3-DIGIT NUMBERS
114	LESSON 19	EQUAL SHARES
120	LESSON 20	ESTIMATE AND MEASURE LENGTH
126	LESSON 21	GRAPHS
132	LESSON 22	2-DIMENSIONAL SHAPES
138	LESSON 23	3-DIMENSIONAL SHAPES
144	LESSON 24	TELL TIME TO 5 MINUTES

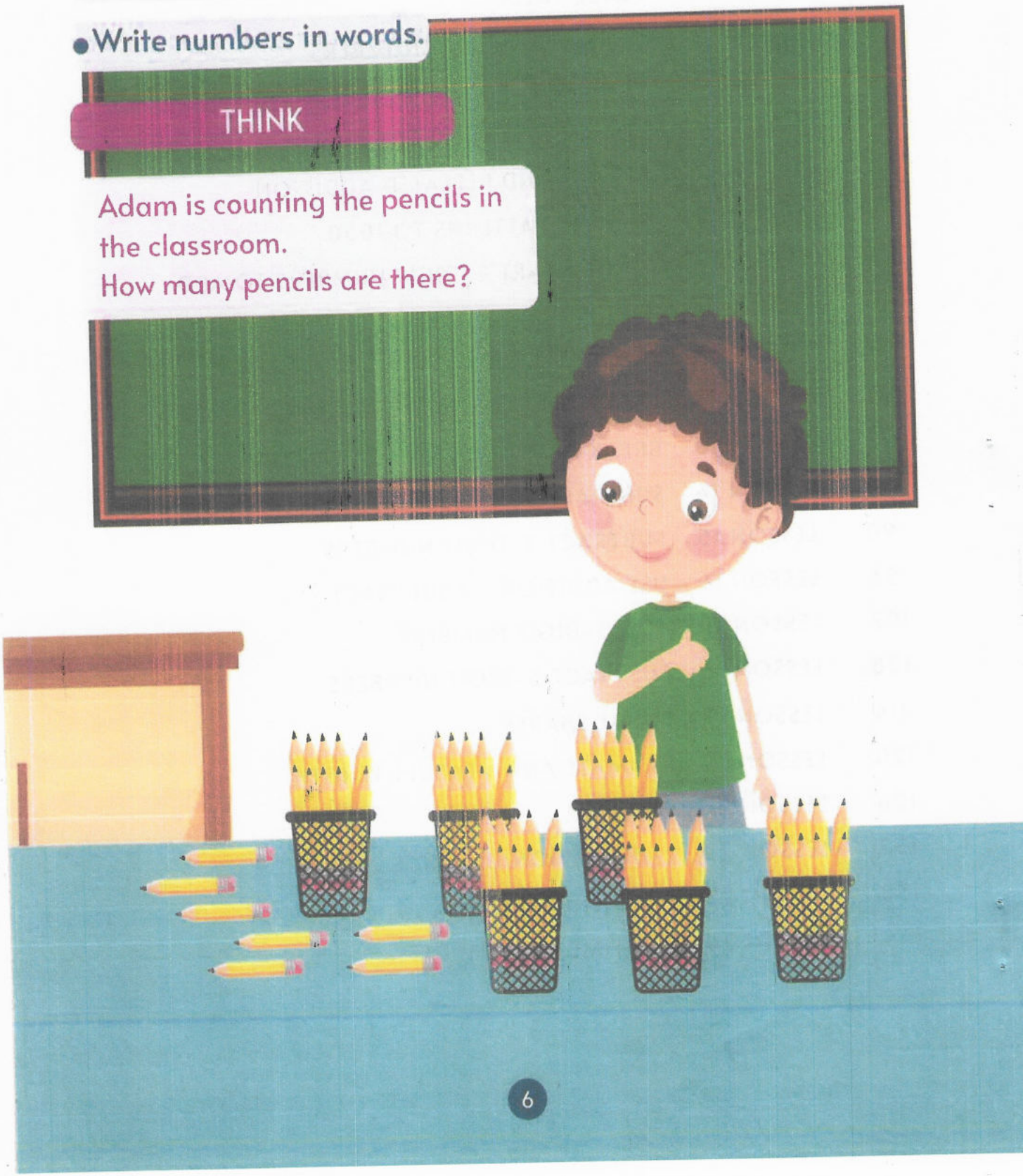
LESSON 1 TENS AND ONES

OBJECTIVES

- Count by tens and ones.
- Write numbers in words.

THINK

Adam is counting the pencils in the classroom.
How many pencils are there?



LEARN

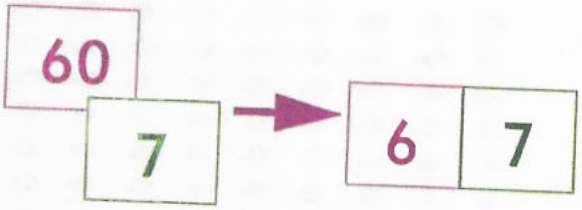
6 tens and 7 ones make 67.

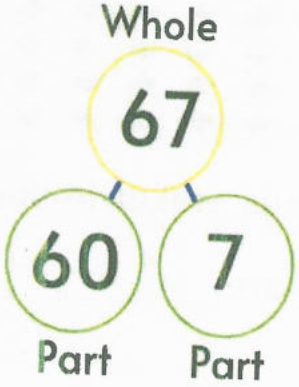
60 and 7 make ☐.

7 more than 60 is ☐.

60 + 7 = ☐

There are _____ pencils.

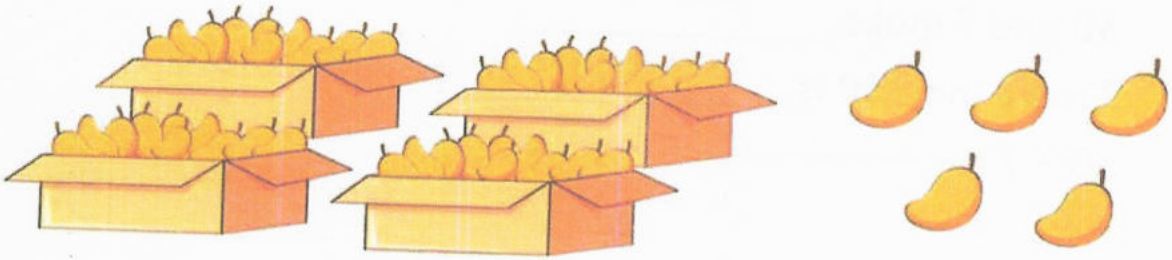




PRACTICE

A. Complete the following.

1. How many mangoes are there? ☐

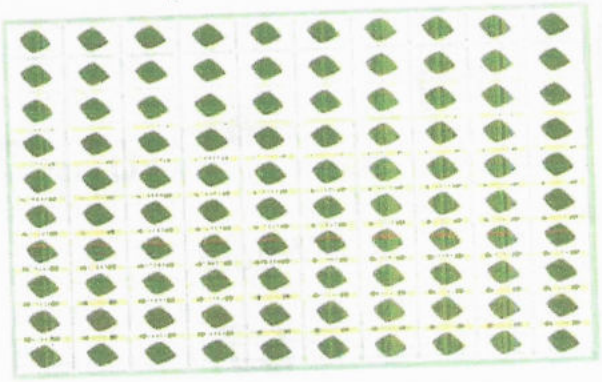


40 and 5 make ☐.

5 more than 40 is ☐.

40 + 5 = ☐

2. How many stamps are there?



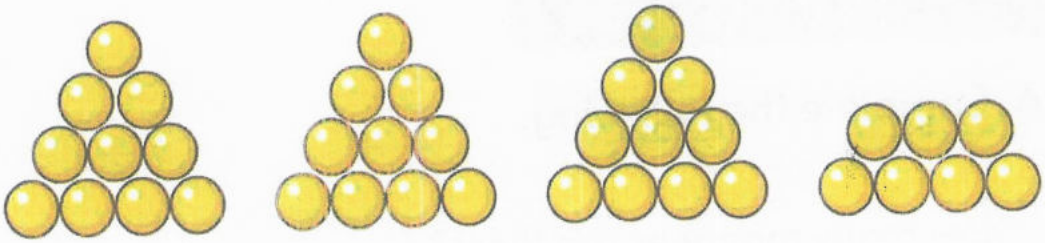
10 tens makes 1 hundred.

There are _____ stamps.

Count by tens:
10, 20, 30, 40, 50, 60, 70, 80, 90, and 100



3.



30 and 7 make _____.

7 more than 30 is _____.

30 + 7 = _____

B. Complete the following number sentences.

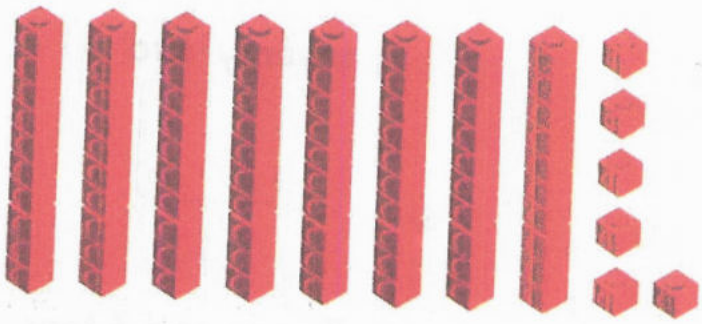
40 + 9 = ☐

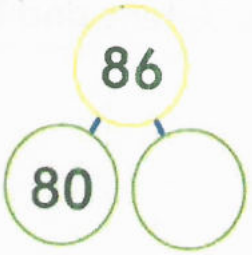
70 + 20 = ☐

50 + 9 = ☐

60 + 40 = ☐

C. Fill in with the missing numbers.

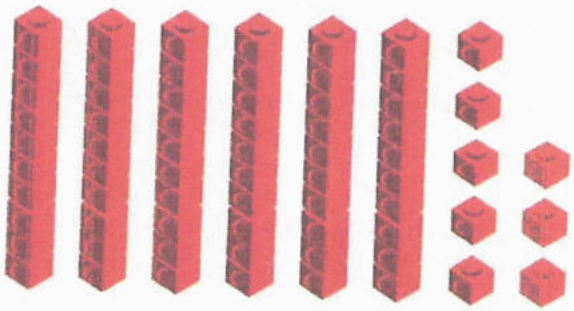
1. 

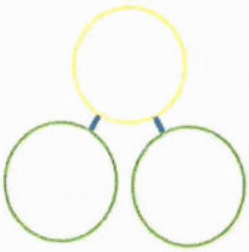


8 tens and _____ ones make 86.

_____ more than 80 is 86.

80 + _____ = 86

2. 



_____ tens and _____ ones make _____.

_____ more than _____ is _____.

_____ + _____ = _____

D. Write in numerals.

1. 4 tens and 8 ones

2. seventy-two

3. twenty-eight

4. 7 ones and 3 tens

5. 4 more than ninety

6. 3 less than thirty-three

E. Write the following numbers in word form.

1. 50: .....

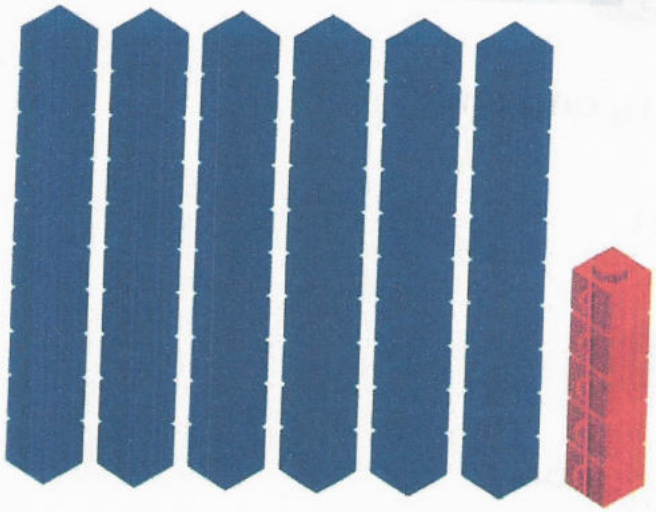
2. 32: .....

3. 17: .....

4. 22: .....

5. 99: .....

F. Answer the following questions.



Tens	Ones
6	5

5 more than 60 is 65.

1. What number is 1 more than 65? ☐



2. What number is 1 less than 65? ☐

3. What number is 10 more than 65? ☐

4. What number is 10 less than 65? ☐

5. What number is 20 more than 65? ☐

6. What number is 20 less than 65? ☐

LESSON 2 HUNDREDS, TENS, AND ONES

OBJECTIVES

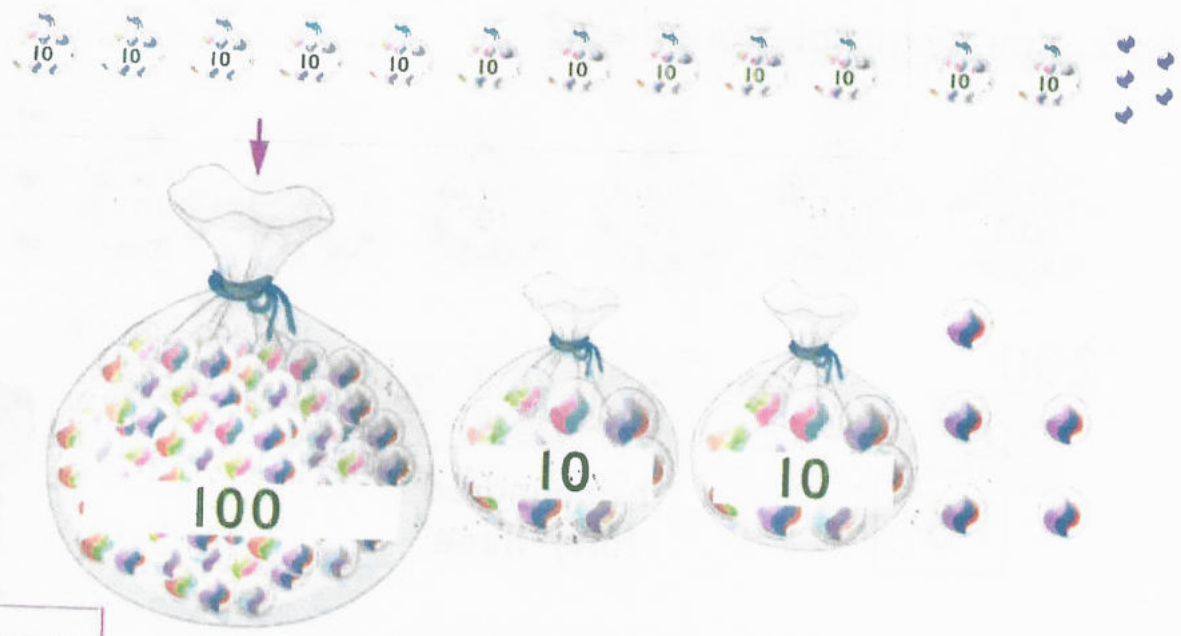
- Count by hundreds, tens, and ones.
- Write numbers in words.

THINK

Jad is playing with the marbles.
How many marbles are there?



LEARN



100
20
5
→ 1 2 5

one hundred twenty-five

100, 110, 120, 121, 122, ...



10 tens makes ☐ hundred.

1 hundred, 2 tens, and 5 ones make 125.

There are ☐ marbles.

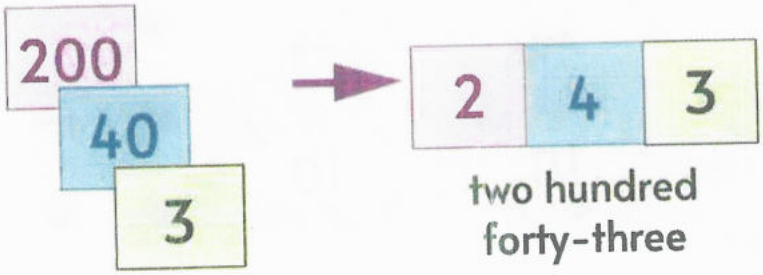
LESSON 2

PRACTICE

A. How many marbles are there?

1.





two hundred
forty-three

100, 200, 210, 220,
230, 240, 241, ...



2 hundreds, 4 tens, and 3 ones make ..... .

There are ____ marbles.

2.



1,000

one thousand

100, 200, 300, 400,
500, 600, 700, ...



10 hundreds makes ..... .

There are ____ marbles.

B. Write the missing numbers in the boxes.

1.

☐ hundreds, ☐ tens, and ☐ ones make ☐.

2.

☐ hundreds, ☐ tens, and ☐ ones make ☐.

C. Write the number in the box provided.

1.



☐

2.



☐

D. Match.

five hundred sixty-three	871
eight hundred seventy-one	928
one hundred ninety	563
one hundred nineteen	255
nine hundred twenty-eight	190
two hundred fifty-five	119

E. Write the following numbers in numerals.

1. seven hundred four
2. three hundred forty
3. eight hundred thirty-seven

F. Write the following numbers in word form.

1. 105: .....

2. 248: .....

3. 360: .....

G. Write the missing numbers.

1. 7 hundreds, ... tens, and 6 ones make 726.

2. 434 is 4 hundreds, 3 tens, and ..... ones.

3. 7 ones, ... hundreds, and 6 tens make 467.

4. 8 ones and 8 hundreds make ..... .

LESSON 3 PLACE VALUE

OBJECTIVE

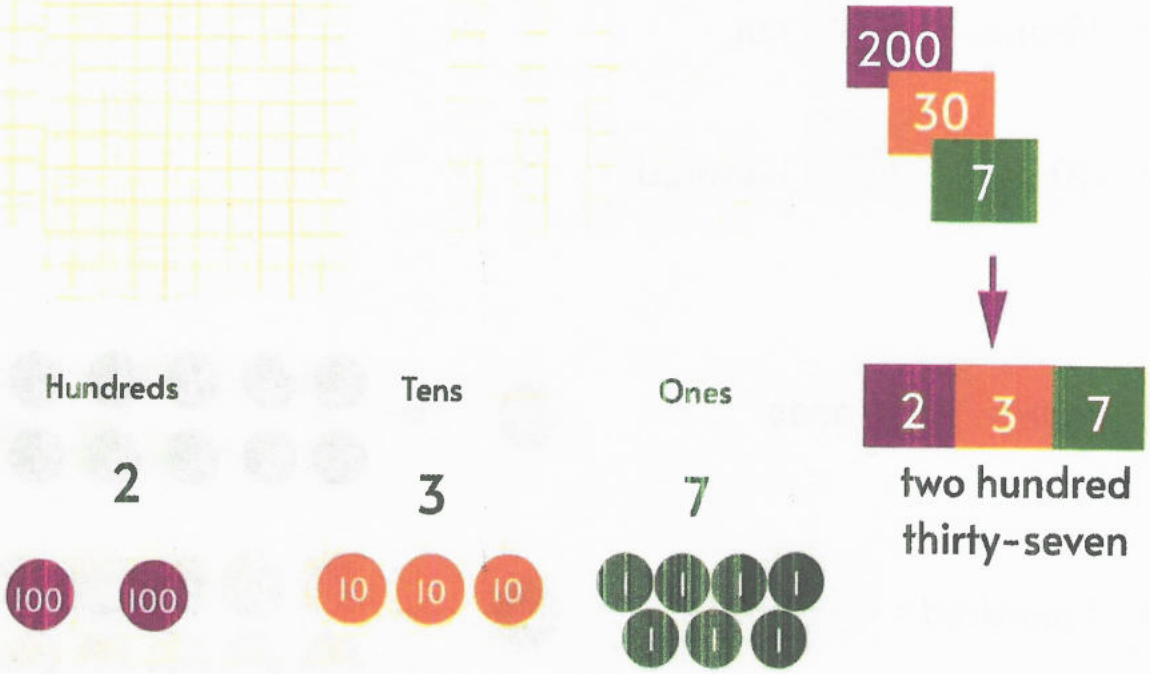
- Determine the place value of a digit in a 3-digit number.

THINK

Jana bought sticky notes from the store.
How many sticky notes did Jana buy?



LEARN



2 hundreds + 3 tens + 7 ones = 237

The place of a digit in a number tells its value.



200 + 30 + 7 = ☐

Jana bought ☐ sticky notes.

237

→ The place value of 2 is 200.

→ The place value of 3 is 30.

→ The place value of 7 is 7.

200 + 30 + 7 is the expanded form of 237.

LESSON 3

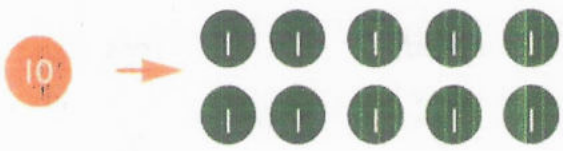
PRACTICE

A. Write the missing numbers.

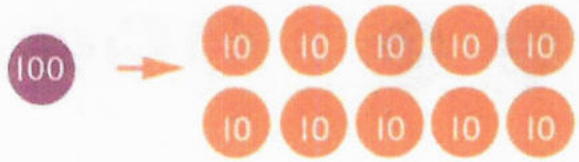
1. 10 ones = ☐ ten

2. 10 tens = ☐ hundred

3. 1 ten = ☐ ones

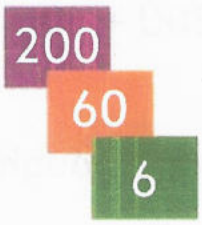


4. 1 hundred = ☐ tens



B. Write the numbers in the table and the box provided.

1.



Hundreds	Tens	Ones
100 100	10 10 10 10 10 10	

200 + 60 + 6 = ☐

2.

200
50

Hundreds Tens Ones



200 + 50 = ☐

3.

300
3

Hundreds Tens Ones





300 + 3 = ☐

C. Complete.

1. 500 + 80 + 7 = ☐

2. 600 + 5 = ☐

3. 200 + ☐ = 240

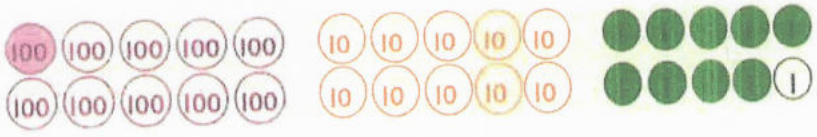
4. 200 + ☐ = 204

5. 10 + 80 + 400 = ☐

6. 50 + 70 = ☐

D. Color to show the number.

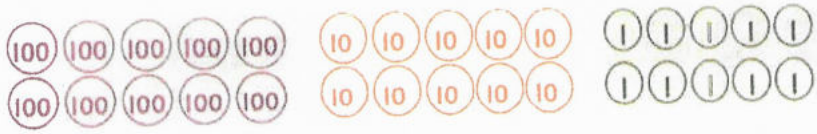
1. 109



2. 780



3. 400 + 40 + 5



E. Circle the value of each underlined digit.

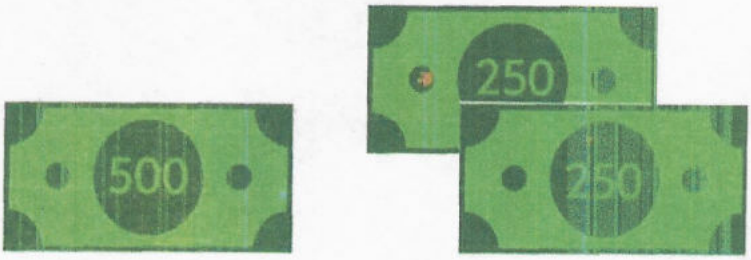
1.	5<u>4</u>9:	400	40	4
2.	60<u>7</u>:	7 ones	7 tens	7 hundreds
3.	<u>5</u>00:	5 ones	5 hundreds	5 tens
4.	<u>9</u>14:	90	900	9

F. Write the expanded form of the following numbers.

1. 534 = 500 + 30 + 4
2. 127 = _____
3. 309 = _____
4. 680 = _____

G. Word Problem

Jana receives money for her birthday.
How much does she receive?



_____

She receives _____ dinars.

LESSON 4 COMPARE 3-DIGIT NUMBERS

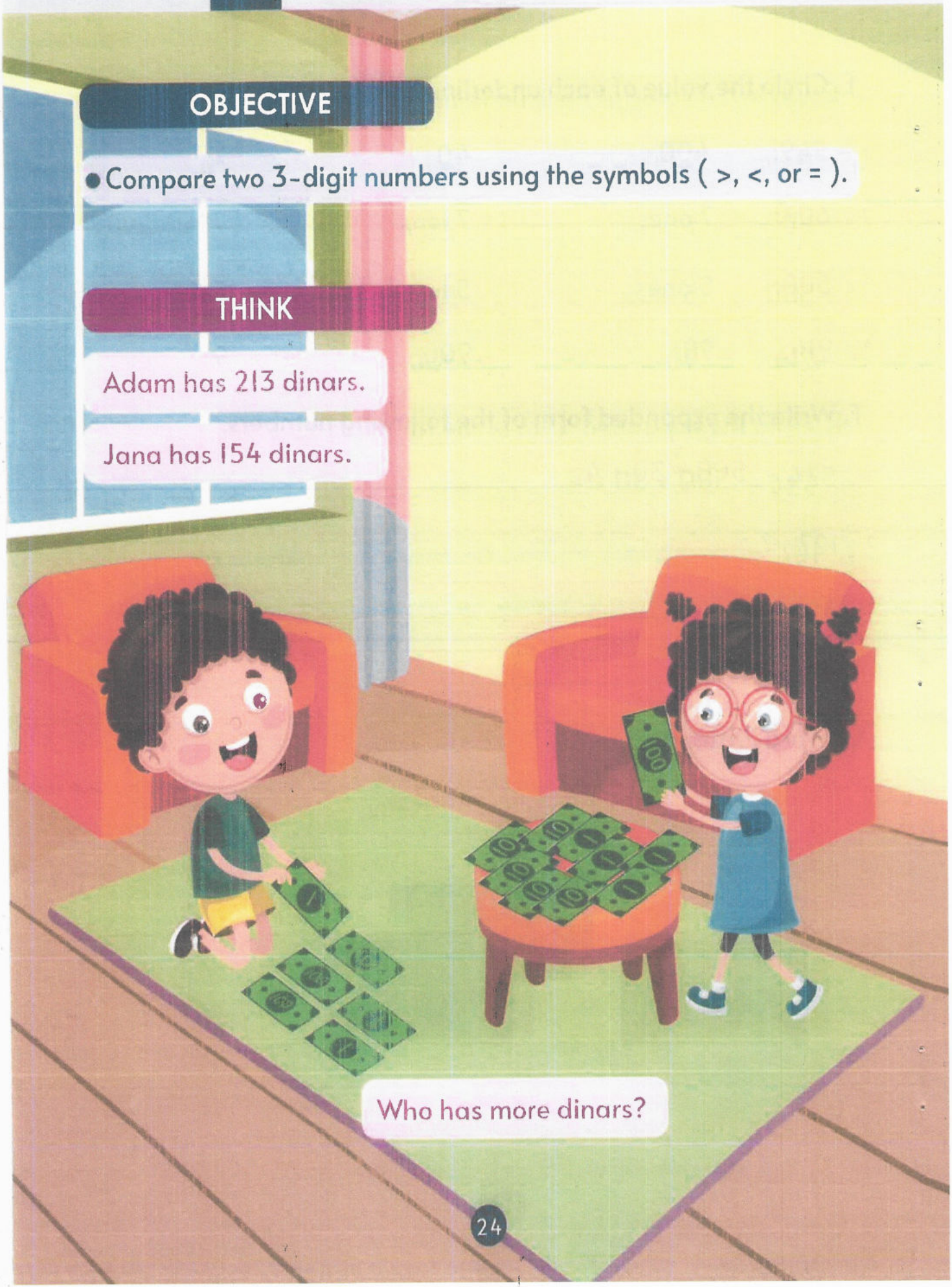
OBJECTIVE

- Compare two 3-digit numbers using the symbols (>, <, or =).

THINK

Adam has 213 dinars.

Jana has 154 dinars.



Who has more dinars?

LEARN

Use place value to compare numbers. Start by looking at the digits in the greatest place value position first.



Hundreds	Tens	Ones
2	1	3

2 hundreds is greater than 1 hundred.

Hundreds	Tens	Ones
1	5	4

213 is greater than 154.

213 > 154

..... has more dinars.

> greater than
< less than
= equal to

LESSON 4

PRACTICE

A. Write the numbers, and then compare them.



Hundreds	Tens	Ones

Hundreds	Tens	Ones



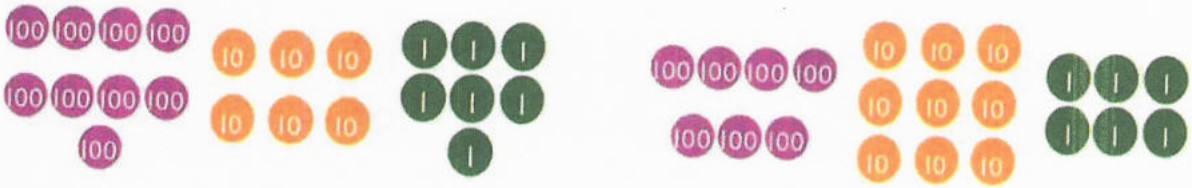
B. Which symbol, > or <, goes in the ◯?

1. 151 ◯ 138

Hundreds	Tens	Ones
1	5	1

Hundreds	Tens	Ones
1	3	8

2. 967 ◯ 796



Hundreds	Tens	Ones
9	6	7

Hundreds	Tens	Ones
7	9	6

3. 95 ◯ 403



C. Compare the numbers. Write >, <, or = in the ◯.

1. 239 ◯ 179

Hundreds	Tens	Ones
2	3	9
1	7	9

2. 435 ◯ 437

Hundreds	Tens	Ones
4	3	5
4	3	7

3. 812 ◯ 812

812
812

4. 934 ◯ 943

934
943

5. 40 + 700 + 1 ◯ 80 + 600 + 1

6. two hundred eleven ◯ ninety-nine

D. Write the number in the ☐.

1. Which is less, 892 or 798? ☐

2. Which is greater, 98 or 401? ☐

3. Which is the greatest, 670, 730, or 701? ☐

E.1. Arrange the numbers in order from least to greatest.

74 702 715 517

_____ _____ _____ _____

2. Arrange the numbers in order from greatest to least.

207 72 720 270 27

_____ _____ _____ _____ _____

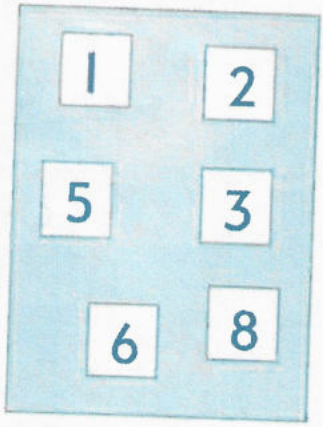
F. Word Problems

1. Adam has 300 red stickers, 50 blue stickers, and 8 green stickers. Jana has 375 stickers.
Who has more stickers?

_____

_____ has more stickers.

2. Use the digits on these number cards to make two 3-digit numbers.
Use each digit only once. Then compare the numbers.



_____ ◯ _____

LESSON 5 ADDITION AND SUBTRACTION FACTS

OBJECTIVES

- Relate addition to subtraction.
- Find the missing addend.

THINK

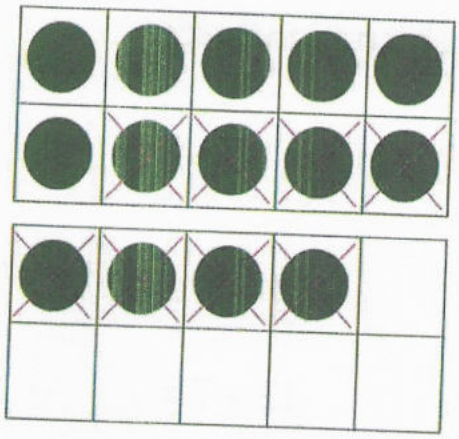
Jad and Adam have 14 car toys altogether.

Jad has 8 car toys.

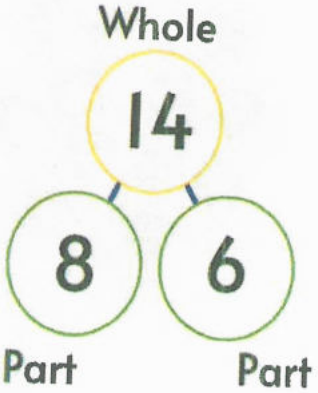
How many car toys does Adam have?



LEARN



One way to subtract is to think about addition.



To find 14 - 8, you can think:



What do we add to 8 to get 14?

8 + ? = 14

The missing number is the same in both equations.

8 + ? = 14

14 - 8 = ?

The addition fact: 8 + 6 = 14

The subtraction fact: 14 - 8 = 6

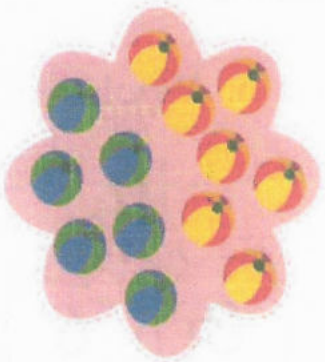
So, Adam has ..... car toys.

LESSON 5

PRACTICE

A. Complete the following addition and subtraction facts.

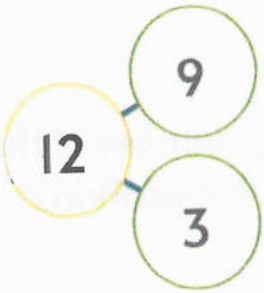
1.



$6 + 7 =$ ☐ $7 + 6 =$ ☐

$13 - 6 =$ ☐ $13 - 7 =$ ☐

2.



$9 + 3 =$ ☐ $3 + 9 =$ ☐

$12 - 9 =$ ☐ $12 - 3 =$ ☐

B. Find the missing addend to help you subtract.

1. $6 - 4 = ?$

$4 +$ ☐ $= 6$

So, $6 - 4 =$ ☐.

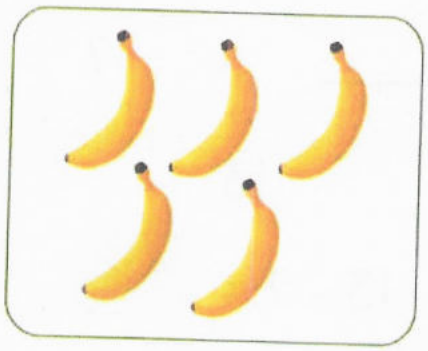
2. $14 - 5 = ?$

$5 + \square = 14$

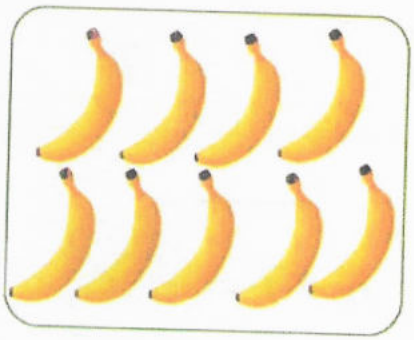
So, $14 - 5 = \square$.

C. Solve the following.

1.



A



B

How many more bananas are there in box B than in box A?

$9 - 5 = \square$

There are ..... more bananas in box B than in box A.

2. $14 - 8 = \square$

8 less than 14 is $\square$.

3. In a basket, there are 12 cherries and 5 pears.
How many more cherries than pears are there?

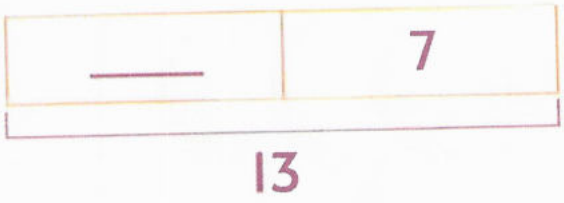
12 - 5 = ☐

There are ☐ more cherries than pears.

D. Complete the bar model.



6 + 7 = ☐



13 - 7 = ☐

E. Write the sum and the difference of the related facts.

1. 5 + 4 = ☐

9 - 4 = ☐

2. 3 + 8 = ☐

11 - 8 = ☐

F. Write a related subtraction fact for each addition fact.

1. 7 + 8 = 15

2. 5 + 7 = 12

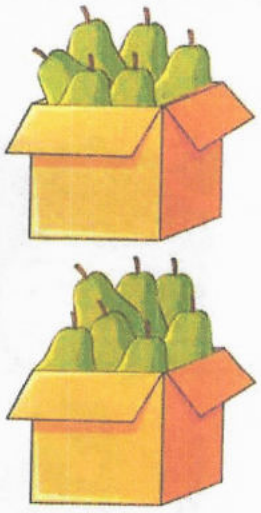
G. Word Problems

1. Jana buys 7 chicken sandwiches and 8 beef sandwiches.
   How many sandwiches does she buy?

_____ ◯ _____ = _____

She buys _____ sandwiches.

2. Adam has a box of 7 pears and a box of 6 pears.



a. How many pears does he have?

_____ ◯ _____ = _____

He has _____ pears.

b. His family eats 5 pears.
   How many pears are left with Adam?

_____ ◯ _____ = _____

_____ pears are left with Adam.

LESSON 6 EVEN AND ODD NUMBERS

OBJECTIVES

- Identify even and odd numbers.
- Sort even and odd for one and two-digit numbers.

THINK

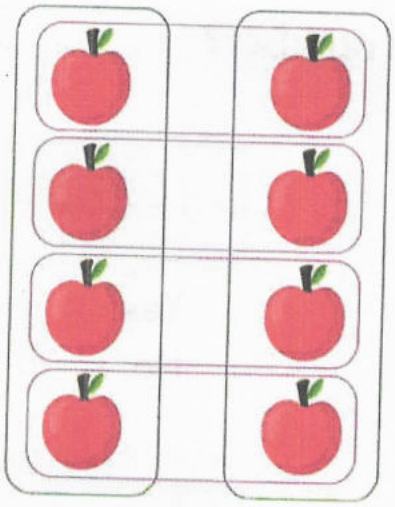
Adam and Jana are trying to share fruits equally.

Can they share 8 apples equally?

Can they share 9 oranges equally?

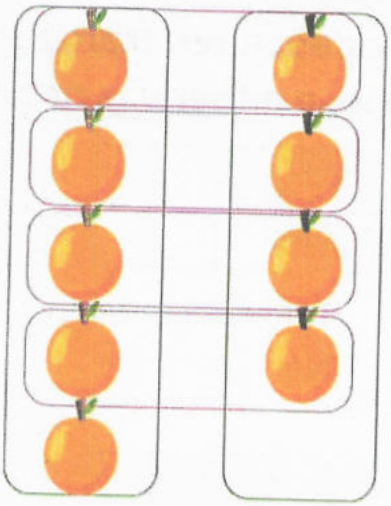


LEARN



8 apples can be distributed as two equal groups.

8 is an even number.



9 oranges cannot be distributed as two equal groups.
It always has 1 leftover.

9 is an odd number.

How can you tell if a number is even or odd?

8



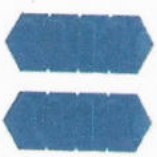
9





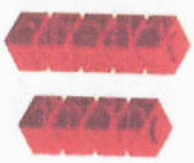
Use cubes to find out whether the number is even or odd.

An even number can be distributed as two equal parts using cubes.



4 + 4 = 8

An odd number cannot be distributed as two equal parts using cubes.

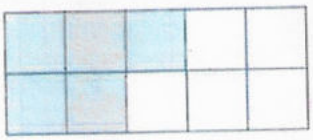


5 + 4 = 9

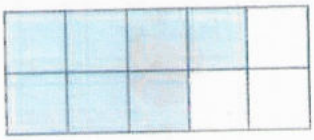
LESSON 6

PRACTICE

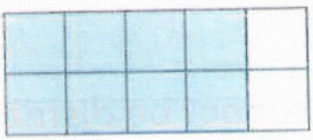
A. Does each ten frame show an even number? Choose either yes or no.

1. 

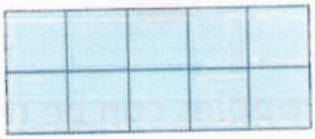
Yes ○
No ○

2. 

Yes ○
No ○

3. 

Yes ○
No ○

4. 

Yes ○
No ○

B. Look at the cubes. Circle even or odd. Then write the equation.

1. 

Odd (Even)

____ + ____ = ____

2. 

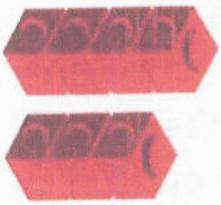
Odd Even

____ + ____ = ____

3. 

Odd Even

____ + ____ = ____

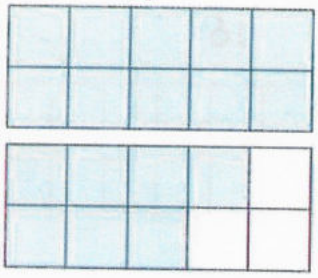
4. 

Odd Even

____ + ____ = ____

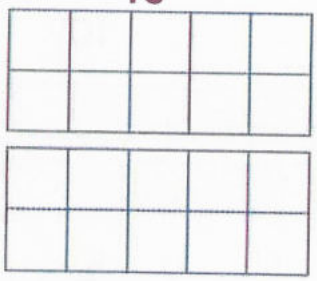
C. Fill in the ten frame to show the given number. Circle even or odd.

1. 17



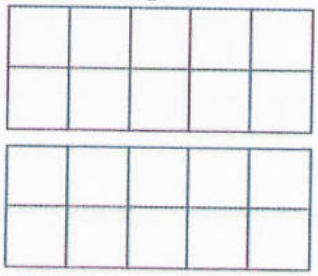
Even Odd

2. 16



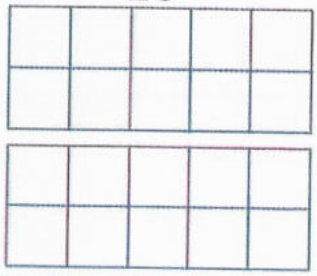
Even Odd

3. 15



Even Odd

4. 20



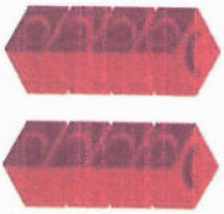
Even Odd

D. Complete the addition sentences according to their equal groups.

1. _____ + _____ = _____



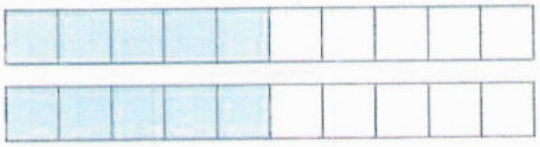
2. _____ + _____ = _____



LESSON 6

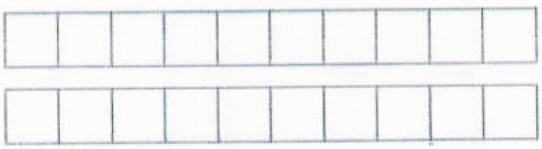
E. Fill in the frame to show two equal groups for each number. Complete the addition sentences with these equal groups.

1. 10



5 + 5 = 10

2. 16



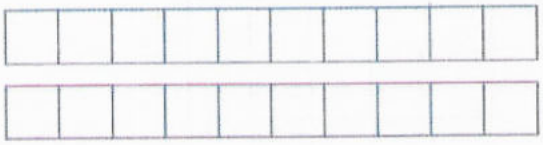
____ + ____ = ____

3. 20



____ + ____ = ____

4. 18



____ + ____ = ____

F. Adam distributes number 7 with the following addition sentence. Use Adam's way to distribute these odd numbers.



7 = 3 + 3 + 1

1. 5 = ____ + ____ + ____

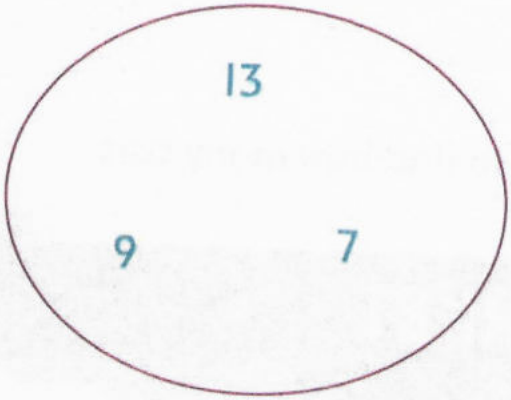
2. 11 = ____ + ____ + ____

3. 9 = ____ + ____ + ____

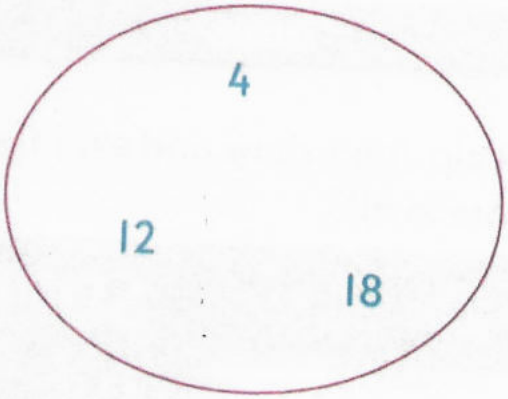
4. 13 = ____ + ____ + ____

G.1. Fill in the blanks to describe the groups of numbers.
Write even or odd.

_____ numbers



_____ numbers



2. Write these numbers inside the correct group above.

5 6 10 11 24 25

H. Word Problem

Adam and Jana have an equal number of seashells.
They have 16 seashells altogether.
How many seashells does each of the kids have?

_____ ◯ _____ = _____



Adam has _____ seashells.

Jana has _____ seashells.

LESSON 7 ARRAYS AND REPEATED ADDITION

OBJECTIVE

- Find the total number of objects in a set of rows and columns by using an array.

THINK

Help Jana show and explain two ways to find how many cars are in all.

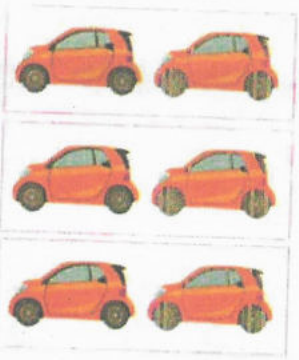


LEARN

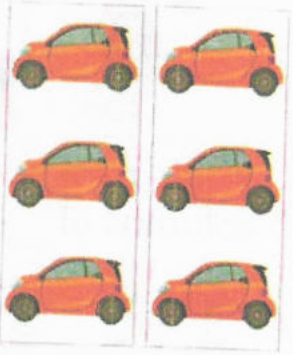
You can model repeated addition with an array.



Arrays have equal rows. Each row has 2 cars.



Arrays have equal columns. Each column has 3 cars.



Write two equations that match the array.

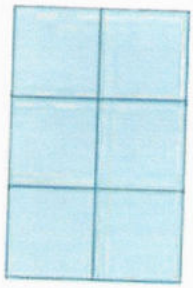
by rows
$2 + 2 + 2 = 6$

by columns
$3 + 3 = 6$

PRACTICE

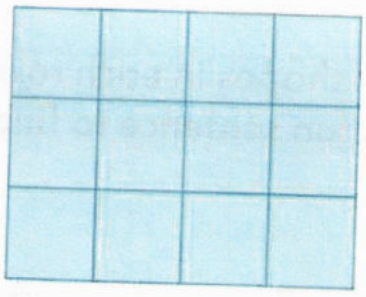
A. Write how many columns and rows each array has.

1.



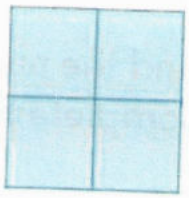
____ columns
____ rows

2.



____ columns
____ rows

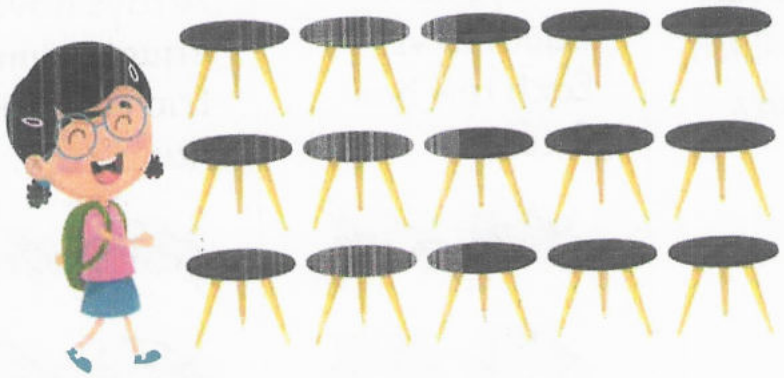
3.



____ columns
____ rows

B. Find the number of objects in each column. Complete the addition sentence to find the sum.

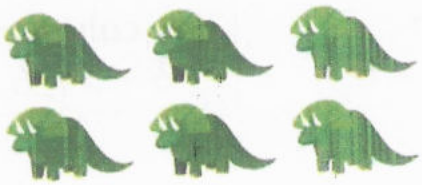
1.



5 columns of 3

3 + 3 + 3 + 3 + 3 = 15

2.

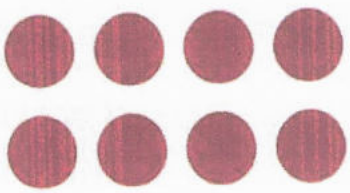


3 columns of _____

_____ + _____ + _____ = _____

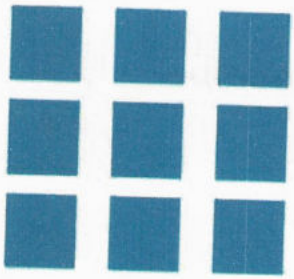
C. Find the number of shapes in each row. Complete the addition sentence to find the sum.

1.



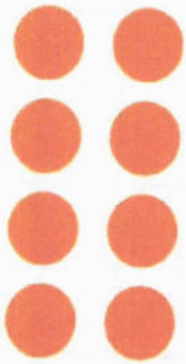
2 rows of 4

4 + 4 = 8

2. 

3 rows of _____

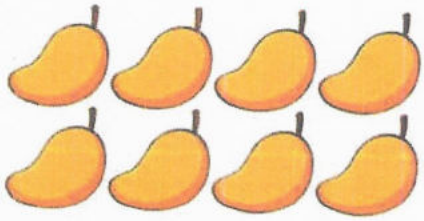
_____ + _____ + _____ = _____

3. 

4 rows of _____

_____ + _____ + _____ + _____ = _____

D. Write two equations that match each array.

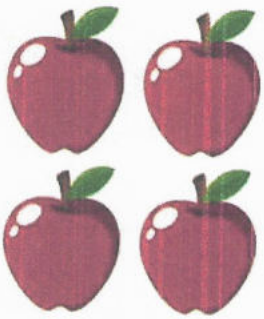
1. 

by rows

4 + 4 = 8

by columns

2 + 2 + 2 + 2 = 8

2. 

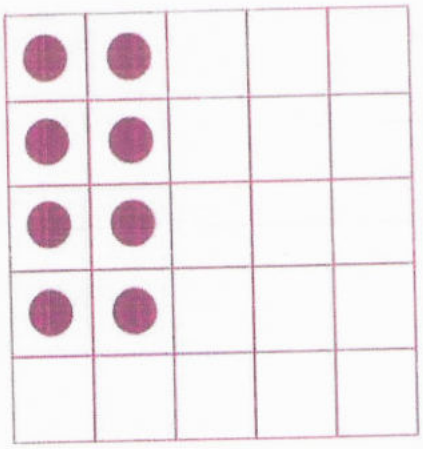
by rows

_____ + _____ = _____

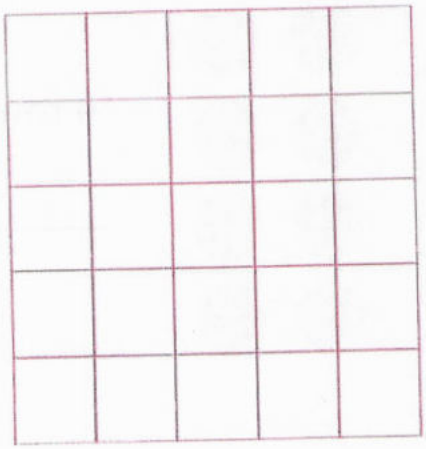
by columns

_____ + _____ = _____

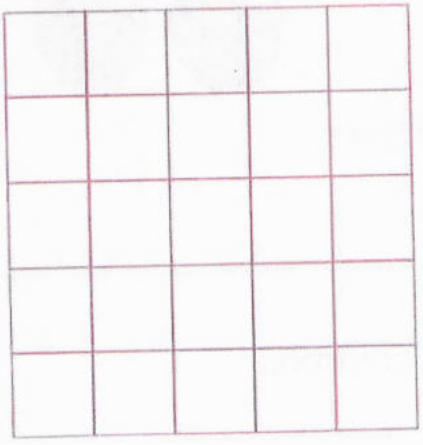
E. Draw small circles in the array to show the number of rows and columns written.

1. 

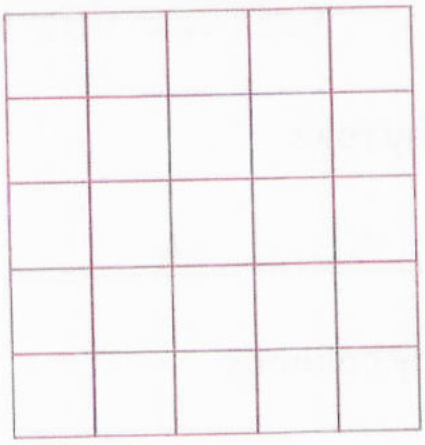
4 rows of 2 columns

2. 

5 rows of 4 columns

3. 

2 rows of 5 columns

4. 

3 rows of 3 columns

F. Word Problems

1. There are 6 photos on the wall.
There are 2 photos in each row.

How many rows of photos are there?



____ + ____ + ____ = ____

There are ..... rows of photos.

2. Adam makes 5 rows of 2 chairs and
2 rows of 3 chairs.

How many chairs does Adam use?

____ + ____ + ____ + ____ + ____ = ____

____ + ____ = ____

____ + ____ = ____



Adam uses ..... chairs.

LESSON 8 NUMBER PATTERNS TO 1000

OBJECTIVE

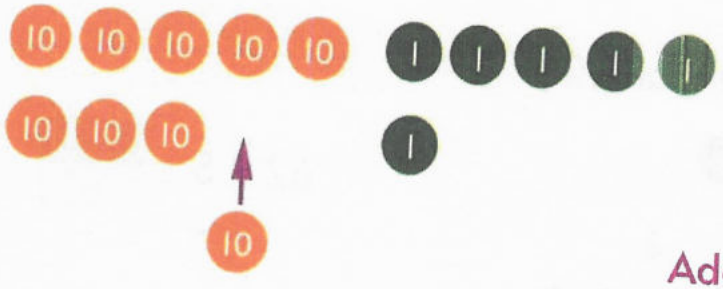
- Count by 1s, 5s, 10s, and 100s with numbers less than 1000.

THINK



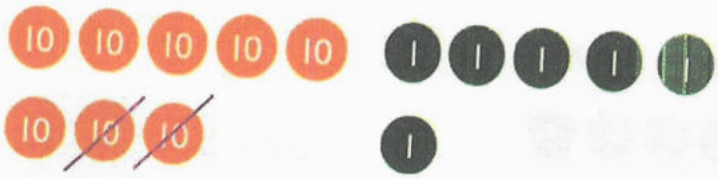
How many stickers does each of Adam and Jad have?

LEARN



86 + 10 = ☐

Adam has ☐ stickers.



86 - 20 = ☐

Jad has ☐ stickers.

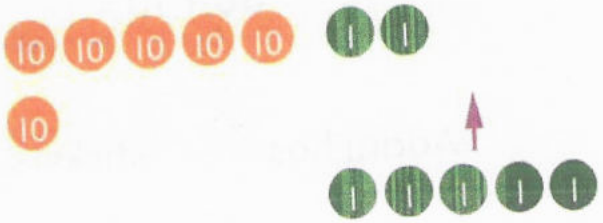
PRACTICE

A. Look at the hundred chart. Write the missing numbers.

1	2	3		5	6		8		10
11		13	14	15	16		18	19	20
	22	23	24		26	27	28	29	30
31	32		34	35	36		38	39	
41		43	44	45	46	47		49	50
51		53		55		57		59	60
	62		64	65	66	67	68		70
71	72		74		76		78	79	
81		83		85	86	87	88	89	90
	92		94	95	96		98		100

B. Guess the number.

1. What number is 5 more than 62?



62 + 5 = ☐

2. What number is 5 less than 87?



87 - 5 = ☐

C. Count on by different amounts.

1. Count on by ones.
   - 15, 16, 17, 18, ..., ..., ..., ..., ..., ...

2. Count on by fives.
   - 15, 20, 25, 30, ..., ..., ..., ..., ..., ...

3. Count on by tens.
   - 17, 27, ..., ..., ..., ..., ..., ..., ...

D. Fill in the following patterns.

1. Count on by ones, and write the numbers between 35 and 42.

35							42

2. Count back by ones, and write the numbers between 76 and 69.

76							69

3. Count on by tens, and write the numbers between 19 and 89.

19							89

E. Count back by different amounts.

1. Count back by fives.
   - 90, 85, ..., ..., ..., ..., ...

2. Count back by tens.
   - 100, 90, ..., ..., ..., ..., ...

3. Count back by hundreds.
   - 730, 630, ..., ..., ..., ..., ...

F. Complete the following number patterns.

1. 30 | 35 | 40 | 45 | ☐ | ☐

2. 81 | 71 | 61 | 51 | ☐ | ☐

3. 700 | 600 | 500 | 400 | ☐ | ☐

G. Jana starts counting at number 40. She follows three different ways. Write the numbers that Jana counts.

1. She counts on by ones.
   - 40, ..., ..., ..., ..., ..., ...

2. She counts on by fives.
   - 40, ..., ..., ..., ..., ..., ...

3. She counts on by hundreds.
   - 40, ..., ..., ..., ..., ..., ...

H. Write the missing numbers.

1.	23		43	53		73
2.	73	72			69	68
3.	30		230	330		530

I. Word Problems

1. Jana counts on by ones. She starts at 29 and stops at 45.
   Which numbers does she say? Circle them.

31 40 47 20 39 35 46

2. Adam counts on by fives. He starts at 5 and stops at 50.
   Which numbers does he say? Circle them.

18 55 10 6 25 45 40

LESSON 9 BREAK APART 2-DIGIT NUMBERS TO ADD

OBJECTIVE

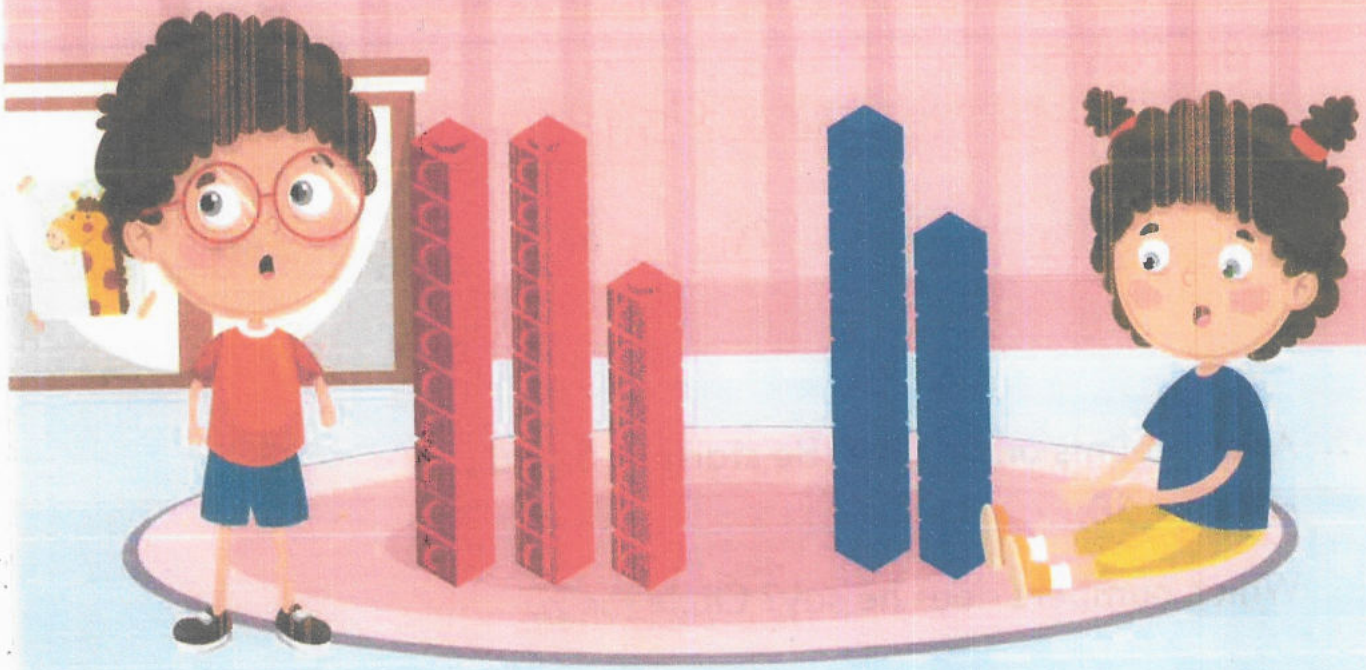
- Add using place value and partial sums.

THINK

Adam has 27 cubes.

Jana has 18 cubes.

How many cubes do they have in all?



LEARN

You can use place value to break apart numbers into tens and ones.



$27 + 18 = ?$

$20 \quad 7 \quad 10 \quad 8$

	Tens	Ones
	2	7
+	1	8

First, add the tens. This is one partial sum.

	Tens	Ones
	2	7
+	1	8
$20 + 10 =$	3	0

Then add the ones. This is another partial sum.

	Tens	Ones
	2	7
+	1	8
$20 + 10 =$	3	0
$7 + 8 =$	1	5

Then add the partial sums to find the total.

	Tens	Ones
	2	7
+	1	8
$20 + 10 =$	3	0
$7 + 8 =$	1	5
Sum =	4	5

So, $27 + 18 = 45$.

They have ..... cubes in all.

LESSON 9

PRACTICE

A. Add using partial sums. Show your work.

1. 24 + 13

	Tens	Ones
	2	4
+	1	3
	3	0
		7

20 + 10 = 30

4 + 3 = 7

Sum = 37

2. 68 + 7

	Tens	Ones
	6	8
+		7

____ + ____ =

____ + ____ =

Sum =

3. 52 + 38

	Tens	Ones
	5	2
+	3	8

____ + ____ =

____ + ____ =

Sum =

4. 45 + 29

	Tens	Ones
	4	5
+	2	9

____ + ____ =

____ + ____ =

Sum =

B. Break apart the addends into tens and ones to find the sum.

1. 27 → 20 + 7
   + 48 → 40 + 8

   60 + 15

   10 5

   70 + 5 = ____

   60 + 15 = ____

2. 35 → ____ + ____
   + 58 → ____ + ____

   ____ + ____ = ____

3. 43 → ____ + ____
   + 29 → ____ + ____

   ____ + ____ = ____

C. Use the hundred chart to find the sum in the following addition sentences.

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
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	100

1. $32 + 43 =$ 75

2. $45 + 23 =$ ____

3. $17 + 22 =$ ____

4. $57 + 34 =$ ____

D. Word Problems

1. Adam has 24 red pens.
He buys 19 blue pens.
How many pens does Adam have?

_____

Adam has _____ pens.

Tens Ones

\+ _____

____ + ____ =

____ + ____ =

Sum =

2. The red team scores 15 more points than the blue team. The blue team scores 36 points.
How many points does the red team score?

_____

The red team scores _____ points.

Tens Ones

\+ _____

____ + ____ =

____ + ____ =

Sum =

LESSON 10 ADD 2-DIGIT NUMBERS WITH REGROUPING

OBJECTIVE

- Add two 2-digit numbers with regrouping.

THINK

Adam scored 37 gold coins in one game.
He scored 19 silver coins in another game.
How many coins did Adam score?



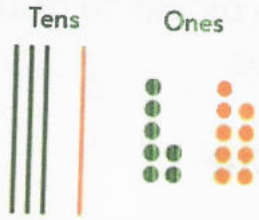
LEARN

Let's add.



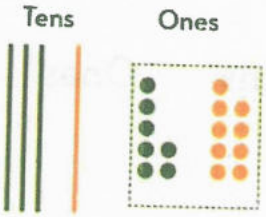
37 + 19 =?

Show 37.
Then show 19.



Tens	Ones
□	
3	7
+ 1	9

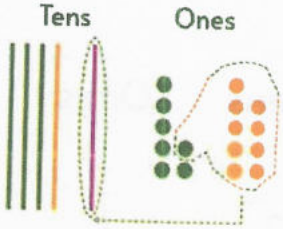
Add the ones.



7 ones + 9 ones = 16 ones



There are 16 ones. Regroup 16 ones as 1 ten and 6 ones.

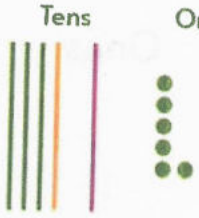


Tens	Ones
1	
3	7
+ 1	9
	6

Write 6 ones.
Write 1 to show 1 ten.

Add the tens.

1 ten + 3 tens = 4 tens
4 tens + 1 ten = 5 tens



Tens	Ones
1	
3	7
+ 1	9
5	6



Write 5 to show 5 tens.

So, Adam scored ..... coins.

PRACTICE

A. Draw place value blocks to add. Regroup if needed.

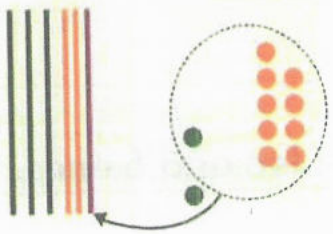
1.

	Tens	Ones
	1	
	3	2
+	2	9
	6	1

2.

	Tens	Ones
	2	4
+	5	2

Tens	Ones



3.

	Tens	Ones
	3	4
+		9

4.

	Tens	Ones
	2	7
+	2	4

Tens	Ones

B. Write the sum.

1.

	Tens	Ones
	☐	
	4	8
+		7

2.

	Tens	Ones
	☐	
	3	5
+	4	2

3.

	Tens	Ones
	☐	
	7	3
+	2	0

4.

	Tens	Ones
	☐	
	3	3
+	2	7

5.

	Tens	Ones
	☐	
	5	2
+		5

6.

	Tens	Ones
	☐	
	3	6
+	5	8

C. Write each addition problem. Then work it out.

1. 25 + 8

$$\begin{array}{r} 2\ 5 \\ +\quad 8 \\ \hline \end{array}$$

2. 37 + 10

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

3. 20 + 45

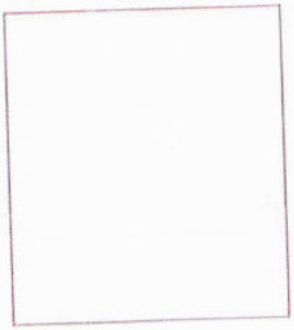
$$\begin{array}{r} \\ \\ + \\ \hline \end{array}$$

4. 63 + 9

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

D. Word Problems

1. Adam has 19 postcards and 2 pens.
He buys 20 more postcards.
How many postcards does Adam have?



_____

Adam has _____ postcards.

2. Jana draws 15 flowers. Adam draws 4 flowers.
How many flowers do they draw?

_____

They draw _____ flowers.



3. There are 23 notebooks inside a box.
There are 29 notebooks on a shelf.
How many notebooks are there?

_____

There are _____ notebooks.



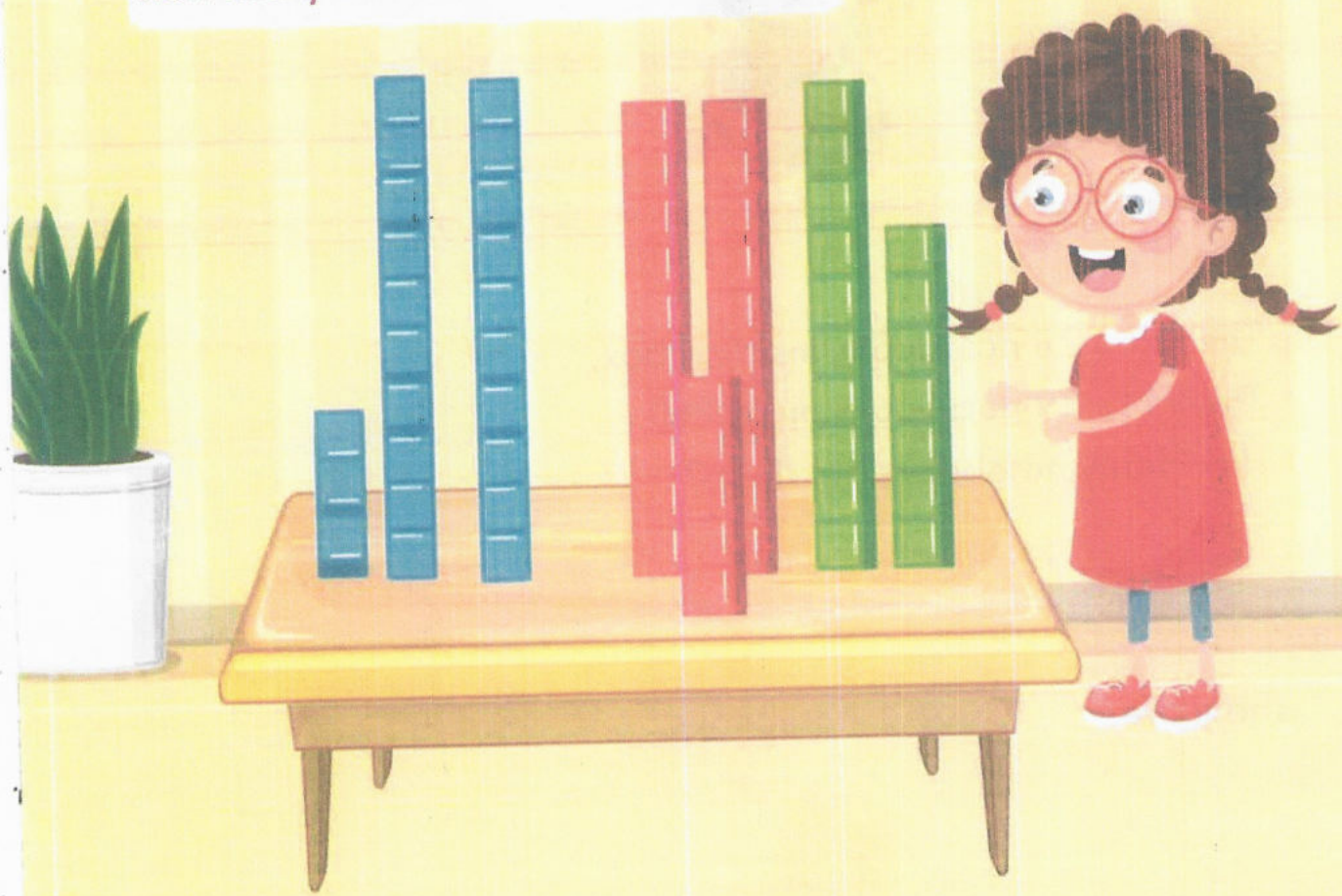
LESSON 11 ADD MORE THAN TWO 2-DIGIT NUMBERS

OBJECTIVE

- Add three or four 2-digit numbers.

THINK

Jana has 23 blue cubes, 25 red cubes, and 17 green cubes.
How many cubes does Jana have?



LEARN

To know the total number of cubes, we add 23, 25, and 17.



Start by adding the ones.
Add in any order.

$$\begin{array}{r} 23 \\ 25 \\ +\ 17 \\ \hline \end{array}$$

Think of different ways to add the first digits in the ones column.

First way:

$3 + 7 = 10$
$10 + 5 = 15$



You can make ten first. Then add the other ones digit.

$$\begin{array}{r} {\scriptstyle 1} \\ 2\,(3) \\ 25 \\ +\ 1\,(7) \\ \hline 5 \end{array}$$

Second way:

Add from top to bottom. First, add the top two digits in the ones column. Then add the last digit.



$3 + 5 = 8$
$8 + 7 = 15$

$$\begin{array}{r} {\scriptstyle 1} \\ 2\,(3) \\ 2\,(5) \\ +\ 17 \\ \hline 5 \end{array}$$

Finally, add the tens.

$$\begin{array}{r} {\scriptstyle 1} \\ 23 \\ 25 \\ +\ 17 \\ \hline 65 \end{array}$$

So, Jana has ..... cubes.

PRACTICE

A. Add.

1.
$$\begin{array}{r} 33 \\ 34 \\ +\ 32 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 47 \\ 21 \\ +\ 27 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 58 \\ 27 \\ +\ 22 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 22 \\ 12 \\ +\ 36 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 31 \\ 21 \\ +\ 16 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 30 \\ 29 \\ +\ 48 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 23 \\ 11 \\ 22 \\ +\ 31 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 30 \\ 15 \\ 13 \\ +\ 25 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 27 \\ 22 \\ 23 \\ +\ 13 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 45 \\ 14 \\ 35 \\ +\ 51 \\ \hline \end{array}$$

B. Word Problems

1. Adam reads three signs at the theater.

Section A	Section B	Section C
35 seats	43 seats	17 seats

Which two sections have 78 seats?
Explain how you have made your choice.

_____

Sections _____ and _____ have 78 seats.

2. Jad puts 21 white marbles, 31 black marbles, and 7 blue marbles in a bag. His sister adds 19 yellow marbles.

Write a number sentence to show the number of marbles in the bag.

_____

There are _____ marbles in the bag.

3. Use the table.
Write or draw to show how you solved the problems below.

Child	Seashells Collected From the Beach
Adam	34
Jad	15
Jana	26
Karim	21



a. How many seashells did the four children collect from the beach?



_____

The four children collected _____ seashells from the beach.

b. Who collected more seashells, Adam and Jad or Jana and Karim?

Adam and Jad: _____



Jana and Karim: _____



_____ collected more seashells.

LESSON 12 BREAK APART ONES TO SUBTRACT

OBJECTIVE

- Break apart a 1-digit number to subtract mentally.

THINK

Adam has 23 lollipops.
He gives away 7 lollipops to Jana.
How many lollipops are left with Adam?



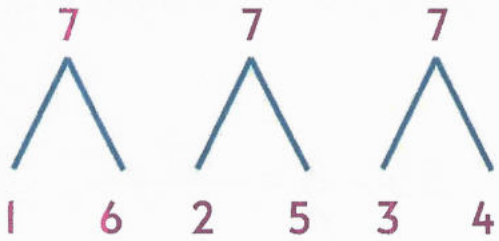
LEARN

23 - 7 =?

Step 1: Break apart the number you are subtracting to find the difference.



Here are 3 ways to break apart 7. Which way best suits to subtract 7 from 23?



23 has 3 in its ones place.
We break apart 7, so one of the addends is 3.

Step 2: Subtract using one of the following methods.

- **Using a hundred chart:**

23 - 7 =?



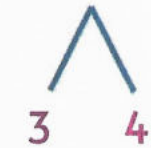
Start at 23.
Subtract 3 to get 20.
Then subtract 4.

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

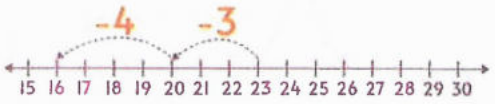
So, 23 - 7 = _____.

- **Using a number line:**

23 - 7 =?



Start at 23.
Count back 3 to get 20.
Then count back 4.



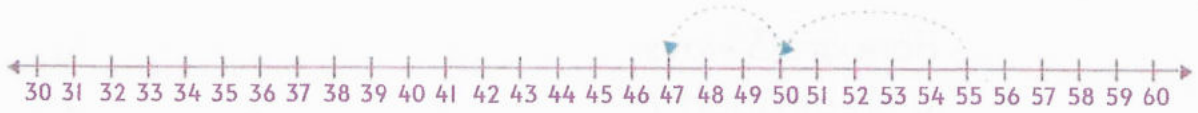
So, 23 - 7 = _____.

_____ lollipops are left with Adam.

LESSON 12

PRACTICE

A. Break apart ones to find the difference.



1. $55 - 8 =$ 47

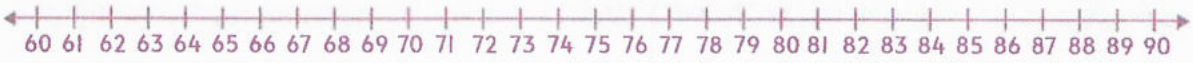


2. $42 - 5 =$ _____



3. $41 - 9 =$ _____

4. $53 - 6 =$ _____



5. $75 - 7 =$ _____



6. $86 - 8 =$ _____



7. $82 - 5 =$ _____

8. $83 - 7 =$ _____

B. Subtract what follows. Break apart the number you are subtracting. Show your work.

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. $35 - 8 =$ _____

2. $41 - 5 =$ _____

3. $33 - 7 =$ _____

4. $47 - 8 =$ _____

C. One number completes both equations.
Find this missing number.

$48 + \square = 56$ | $56 - \square = 48$

Think about how subtraction and addition are related.

The missing number is _____.

D. Word Problems

1. Adam has 7 pencils.
   Adam's teacher has 45 pencils.
   How many fewer pencils does Adam have than his teacher?

   _____

   Adam has _____ fewer pencils than his teacher.

2. Jad has 46 marbles.
   He gives his friend some marbles and has 9 marbles left.
   How many marbles does Jad give his friend?

   _____

   Jad gives his friend _____ marbles.

3. Adam has 73 blocks.
He gives his sister 8 blocks.
How many blocks does Adam have now?

Draw or write to show how you can solve the problem.

Adam has _____ blocks now.

LESSON 13 BREAK APART NUMBERS TO SUBTRACT

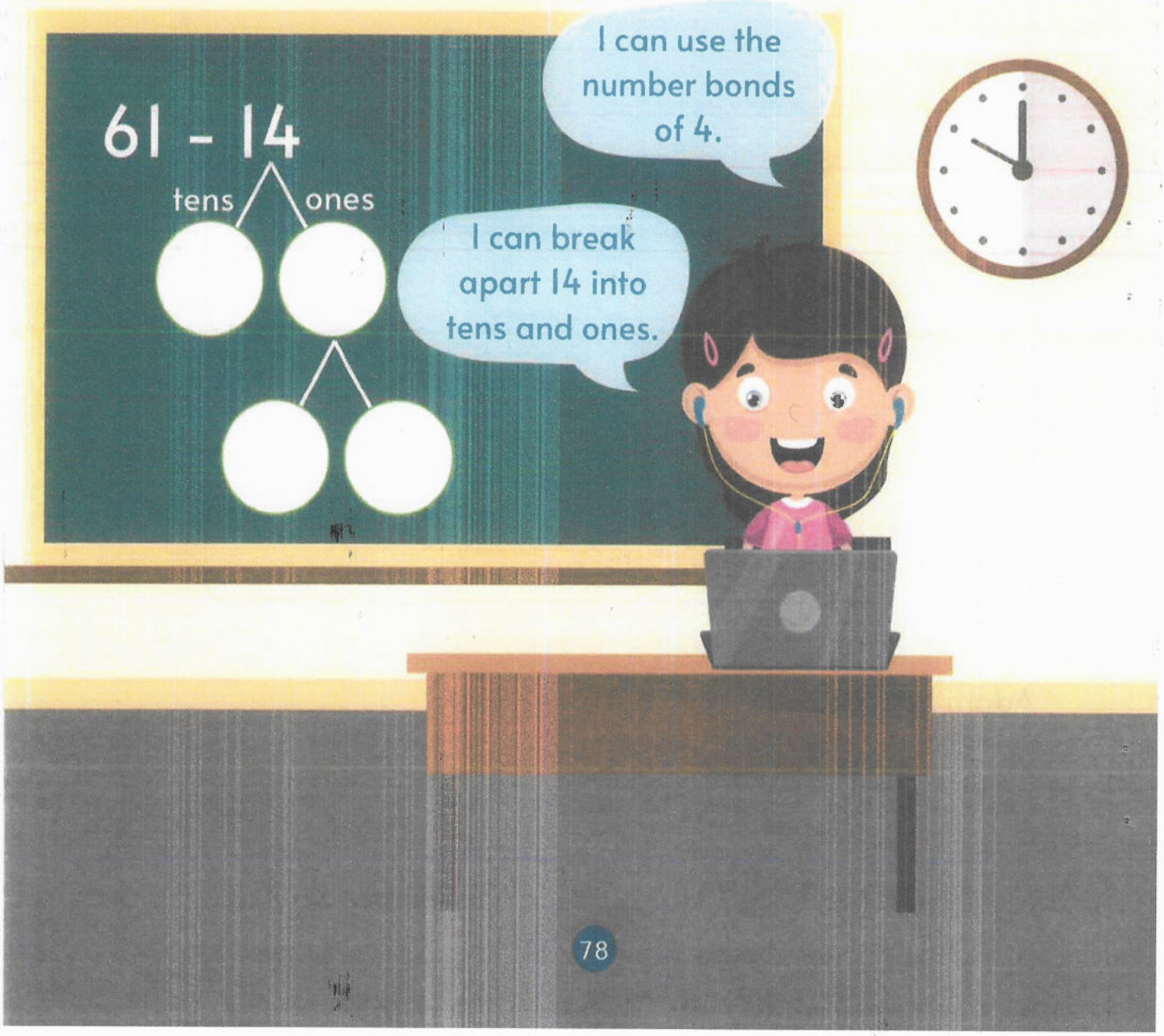
OBJECTIVE

- Break apart 2-digit numbers to subtract mentally.

THINK

Lyn wants to find the difference 61 - 14 by breaking apart 14 into two numbers.

Use place value to show how Lyn can find the difference.



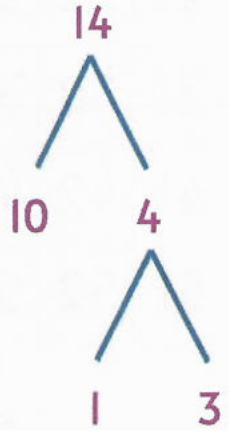
LEARN

61 - 14 =?

You can use place value to break apart the number you are subtracting.



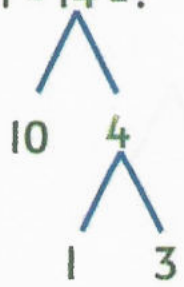
Break apart 14 into tens and ones. Then break apart the ones.



61 has 1 in its ones place. We break apart 4, so one of the addends is 1.

- Using a hundred chart:

61 - 14 =?



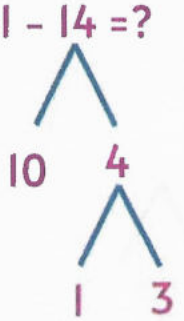
Start at 61.
Subtract 10 to get 51.
Subtract 1 to get 50.
Subtract 3 more.

41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70

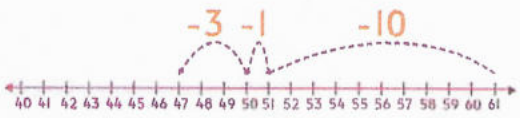
So, 61 - 14 = _____.

- Using a number line:

61 - 14 =?



Start at 61.
Count back 10 to get 51.
Count back 1 to get 50.
Count back 3.



So, 61 - 14 = _____.

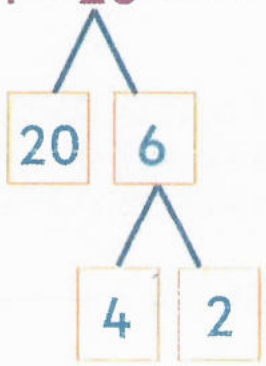
LESSON 13

PRACTICE

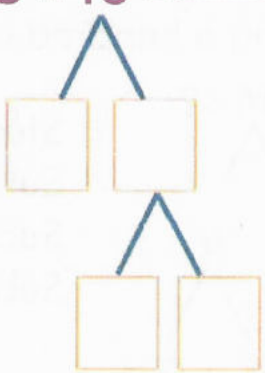
A. Subtract the following. Break apart the number you are subtracting. Show your work.

21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

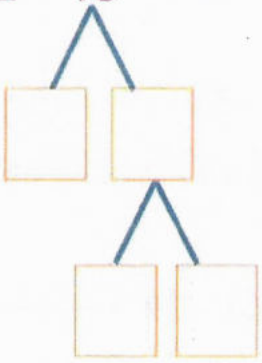
1. 54 - 26 = 28



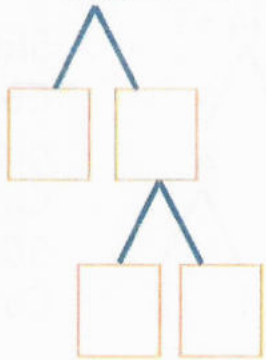
2. 43 - 18 = _____



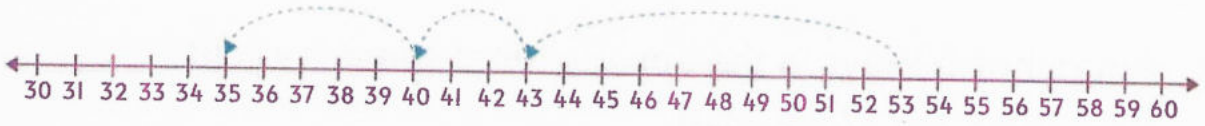
3. 42 - 13 = _____



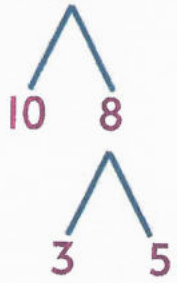
4. 57 - 28 = _____



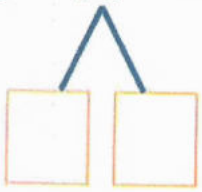
B. Break apart the number you are subtracting. Find the difference.

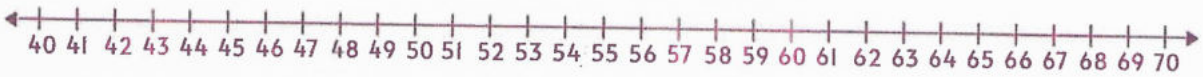


1. 53 - 18 = 35

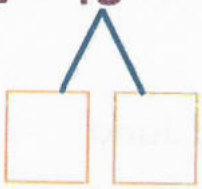


2. 45 - 14 = _____

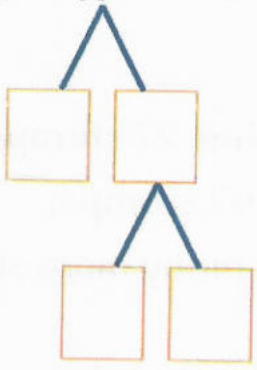




3. 57 - 15 = _____



4. 63 - 17 = _____



5. 68 - 19 = _____

6. 61 - 18 = _____

C. Word Problems

1. Adam has 53 toys in the box. He takes some toys out.
Now, there are 36 toys left.
How many toys does Adam take out from the box?

_____

Adam takes out _____ toys from the box.

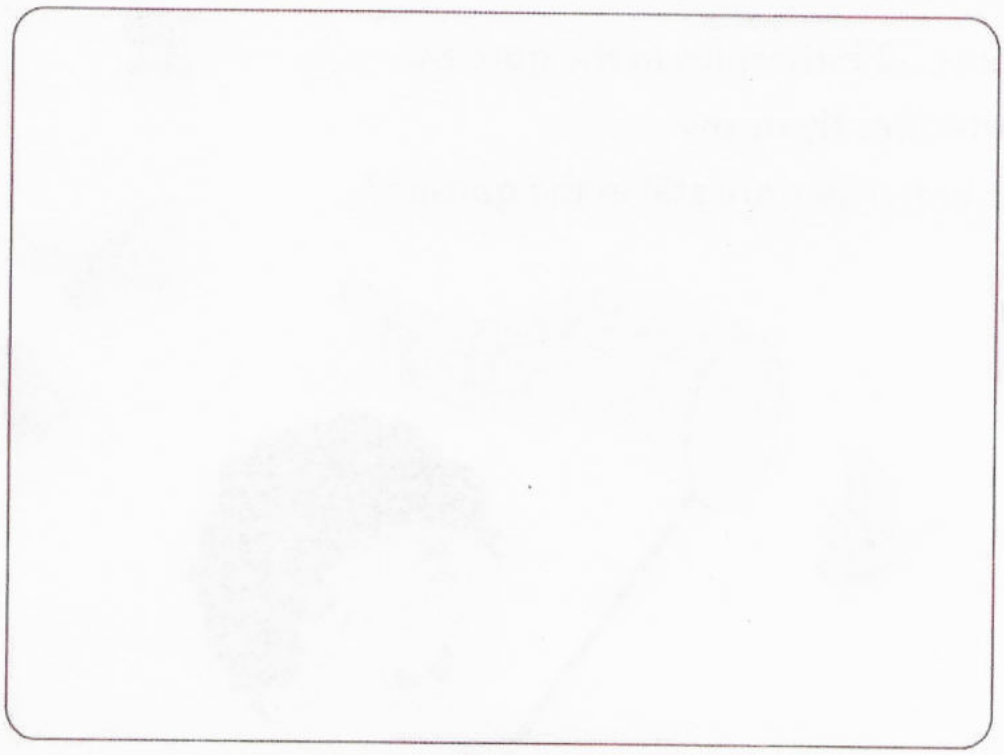
2. Jad has 27 stamps, Adam has 82 stamps, and Jana has 42 stamps.
How many more stamps does Adam have than Jad?

_____

Adam has _____ more stamps than Jad.

3. Lyn has two piles of papers. There are 32 papers in the first pile and 19 in the second pile.
How many more papers are in the first pile?

Draw or write to show how you can solve the problem.



_____ more papers are in the first pile.

LESSON 14 SUBTRACT 2-DIGIT AND 1-DIGIT NUMBERS

OBJECTIVES

- Exchange 1 ten for 10 ones.
- Use place value and models to subtract 1-digit numbers from 2-digit numbers.

THINK

Adam counts 32 butterflies in the garden.
Then 5 butterflies fly away.
How many butterflies are still in the garden?



LEARN

Find 32 - 5.

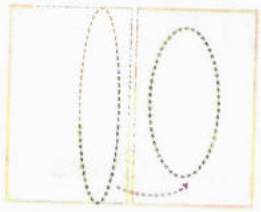


Show 32.
There are not enough ones to subtract.



Tens	Ones
□	□
3	2
−	5

Regroup 1 ten as 10 ones.



Tens	Ones
2	12
~~3~~	~~2~~
−	5

Write 2 to show 2 tens.
Write 12 to show 12 ones.



Subtract the ones. Then subtract the tens.



Tens	Ones
2	12
~~3~~	~~2~~
−	5
2	7

There are 2 tens and 7 ones left.



So, 32 - 5 = 27.

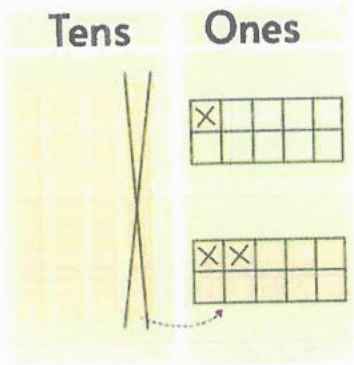
..... butterflies are still in the garden.

LESSON 14

PRACTICE

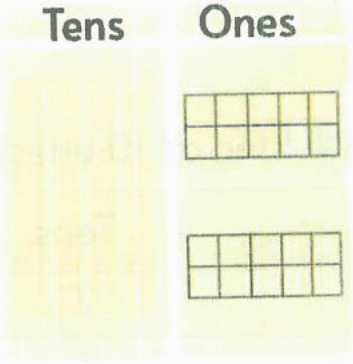
A. Draw to show the regrouping. Write the tens and ones with the answers in the blanks provided.

1. Subtract 3 from 41.



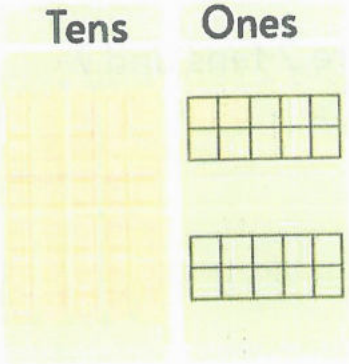
....3.... Tens ....8.... Ones
....38....

2. Subtract 9 from 48.



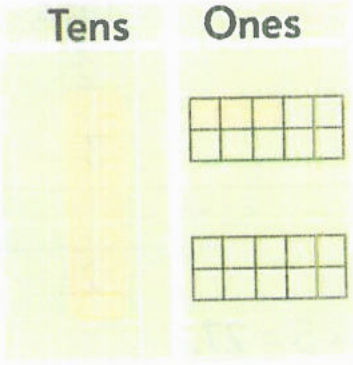
..... Tens ..... Ones
.....

3. Subtract 8 from 52.



..... Tens ..... Ones
.....

4. Subtract 4 from 23.



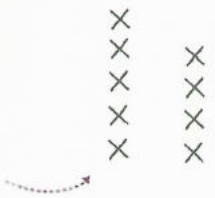
..... Tens ..... Ones
.....

B. Subtract the following. Draw place value blocks to show your work. Regroup if needed.

1.

	Tens	Ones
	3	14
	~~4~~	~~4~~
−		9
	3	5

Tens	Ones



2.

	Tens	Ones
	□	□
	2	3
−		5

Tens	Ones

3.

	Tens	Ones
	□	□
	3	5
−		8

Tens	Ones

4.

	Tens	Ones
	□	□
	6	3
−		2

Tens	Ones

C. Word Problems

1. There are 25 bikes at a bike store.
   The store owner sells 7 bikes.
   How many bikes are left?

Tens	Ones
☐	☐
−	

_____

_____ bikes are left.

2. There are 67 books on the shelf.
   Lyn takes 8 of them.
   How many books are left on the shelf?

Tens	Ones
☐	☐
−	

_____

_____ books are left on the shelf.

3. Jana made a mistake when she subtracted 4 from 72.
Help Jana fix her mistake.

Jana's Work

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

	Tens	Ones
	☐	☐

$$-\ _____$$

4. Adam has 45 marbles.
He gives his brother 3 marbles.
How many marbles does Adam still have?

	Tens	Ones
	☐	☐

$$_____ - _____$$

Adam still has _____ marbles.

LESSON 15 SUBTRACT 2-DIGIT NUMBERS

OBJECTIVE

- Use place value and models to subtract 2-digit numbers.

THINK

Samir, the baker, prepares 56 donuts.

He sells 19 donuts.

How many donuts are left?

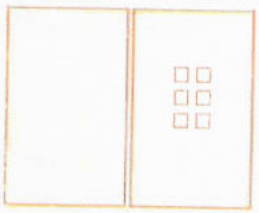


LEARN

Trace over the quick pictures in steps.

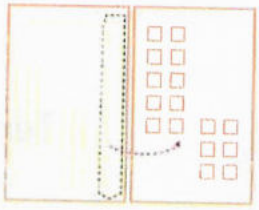
Subtract. $\begin{array}{r} 56 \\ -\ 19 \\ \hline \end{array}$

Step 1 Show 56. Are there enough ones to subtract 9?



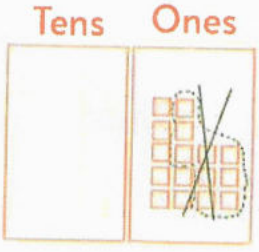
	Tens	Ones
	5	6
−	1	9

Step 2 If there are not enough ones, regroup 1 ten as 10 ones.



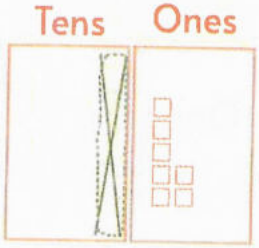
	Tens	Ones
	4	16
	~~5~~	~~6~~
−	1	9

Step 3 Subtract the ones.
16 − 9 = 7



	Tens	Ones
	4	16
	~~5~~	~~6~~
−	1	9
		7

Step 4 Subtract the tens.
4 − 1 = 3



	Tens	Ones
	4	16
	~~5~~	~~6~~
−	1	9
	3	7

So, _____ donuts are left.

LESSON 15

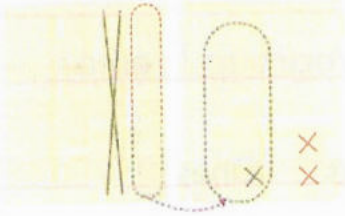
PRACTICE

A. Subtract the following. Draw place value blocks to show your work.

1.

	Tens	Ones
	4	12
	~~5~~	~~2~~
−	1	3
	3	9

Tens Ones



2.

	Tens	Ones
	□	□
	4	1
−	2	6

Tens Ones

3.

	Tens	Ones
	□	□
	6	4
−	4	7

Tens Ones

4.

	Tens	Ones
	□	□
	3	5
−	2	9

Tens Ones

B. Find the difference. Regroup if needed.

1.

	Tens	Ones
	□	□
	2	3
−	1	4

2.

	Tens	Ones
	□	□
	8	7
−	5	7

3.

	Tens	Ones
	□	□
	3	4
−	1	8

4.

	Tens	Ones
	□	□
	6	1
−	1	3

C. Write each subtraction problem. Find the difference.

1. 34 - 15

Tens	Ones
□	□

−

2. 67 - 48

Tens	Ones
□	□

−

LESSON 15

D. Word Problems

1. Jad has 72 marbles.
   Adam has 56 marbles.
   How many more marbles does Jad have than Adam?

	Tens	Ones
	□	□
−		

Jad has _____ more marbles than Adam.

2. There are 34 chickens in the coop.
   16 chickens go outside to the yard.
   How many chickens remain in the coop?

Circle the correct answer.

8
18
28

chickens remain in the coop.

	Tens	Ones
	□	□
−		

3. Adam writes 5 fewer stories than Jana.
Jana writes 18 stories.
How many stories does Adam write?

Tens	Ones
☐	☐

_____

_____

Adam writes _____ stories.

4. Lyn can fit 90 cards in a scrapbook.
She already has 46 cards in the scrapbook.
How many more cards can Lyn still fit? Choose the correct answer.

(a) 44

(b) 45

(c) 46

(d) 54

Tens	Ones
☐	☐

_____

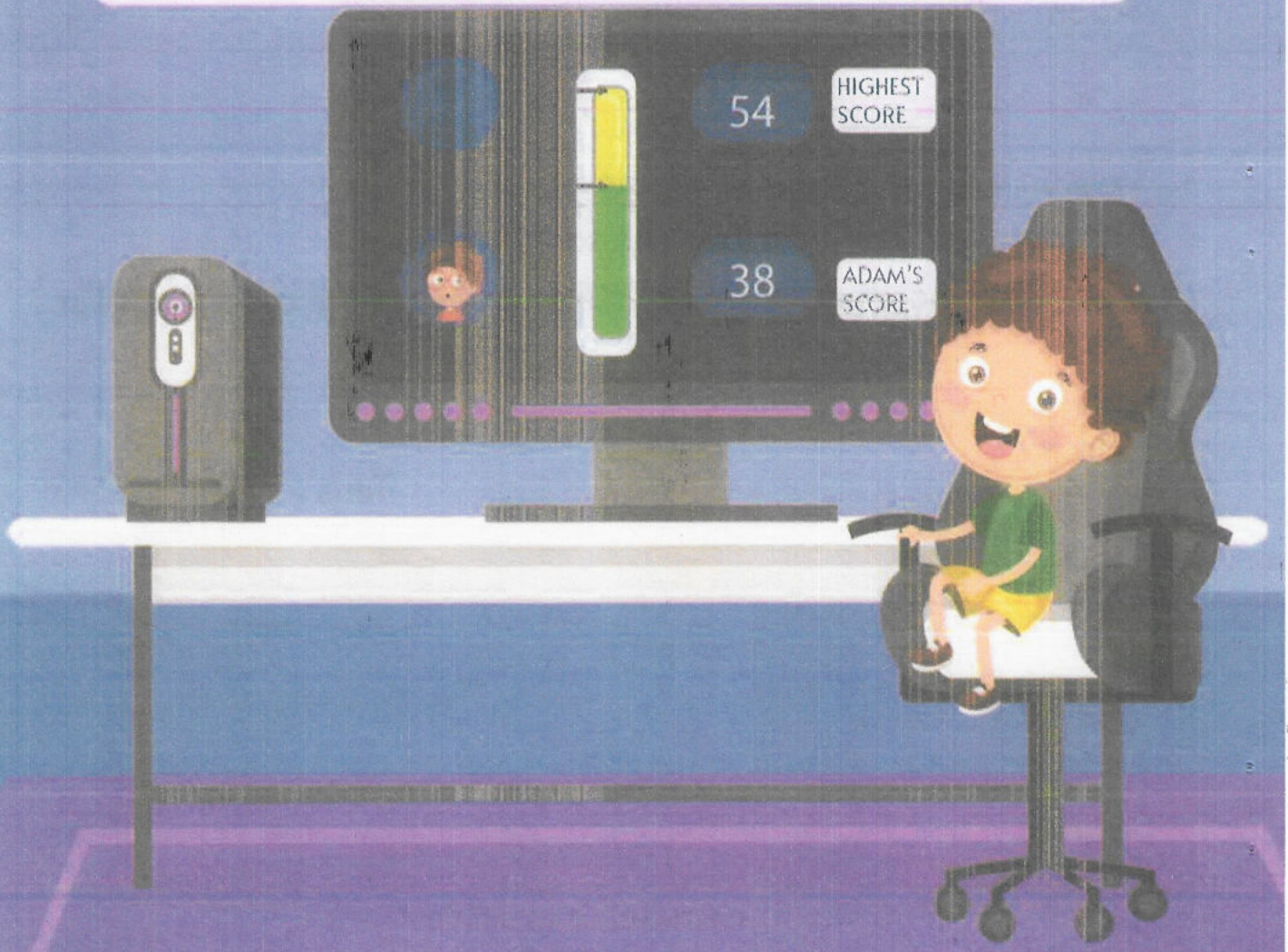
LESSON 16 USE ADDITION TO SUBTRACT

OBJECTIVE

- Add to solve subtraction problems.

THINK

The highest score recorded in a game is 54 points.
Adam scored 38 points.
Use subtraction and addition to find the number of points
Adam needs to score to reach the highest score.



LEARN

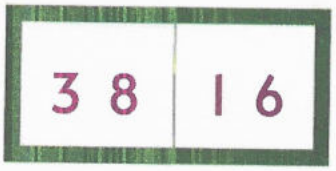
Remember that addition and subtraction are related, so you can add to check subtraction.

Find 54 - 38.

$$\begin{array}{r} 54 \\ -\ 38 \\ \hline 16 \end{array} \quad \rightarrow \quad \begin{array}{r} 38 \\ +\ 16 \\ \hline 54 \end{array}$$

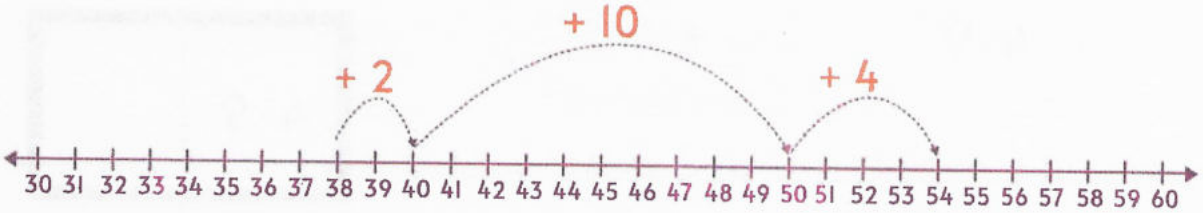
The sum of the parts equals the whole.





Count from the number you are subtracting to find the difference.

54 - 38 =?



Start at 38.
Count on 2 to get 40.
Count on 10 to get 50.
Count on 4 to get 54.
Add what you count on: 2 + 10 + 4 = 16.

So, 54 - 38 = _____.

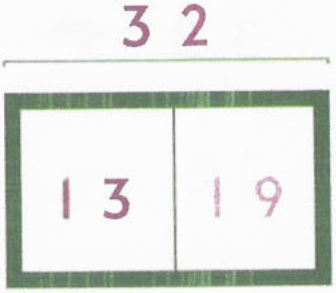
Adam needs to score ..... points.

LESSON 16

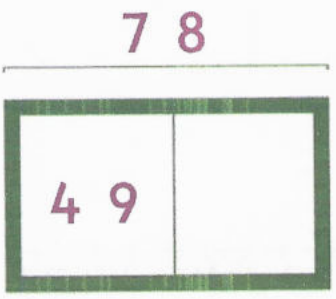
PRACTICE

A. Subtract. Check your answer by adding. Then write the missing part.

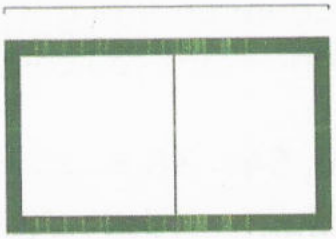
1. $\begin{array}{r} 32 \\ -\ 13 \\ \hline 19 \end{array}$ $\begin{array}{r} 13 \\ +\ 19 \\ \hline 32 \end{array}$



2. $\begin{array}{r} 78 \\ -\ 49 \\ \hline \end{array}$ $+$ _____

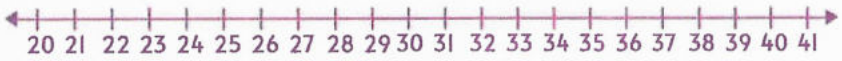


3. $\begin{array}{r} 52 \\ -\ 27 \\ \hline \end{array}$ $+$ _____

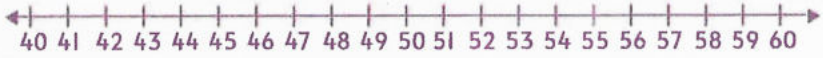


B. Use the number line. Count on to find the difference.

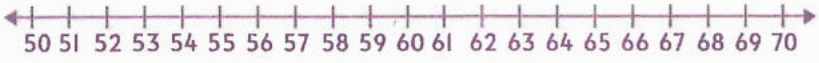
1. 36 - 27 = _____ 27 + _____ = 36



2. 56 - 49 = _____ 49 + _____ = 56

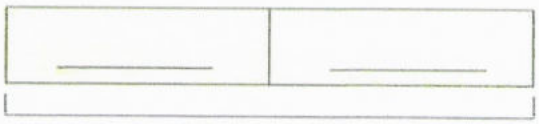


3. 64 - 58 = _____ 58 + _____ = 64



C. Word Problems

1. Lyn's class makes 31 clay bowls. Jana's class makes 15 clay bowls.
   How many more clay bowls does Lyn's class make?

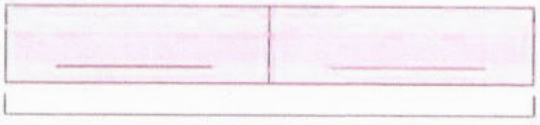


_____

_____

Lyn's class makes _____ more clay bowls.

2. There are 40 ants on a rock. Some ants move to the grass, while 26 ants remain in their place.
   How many ants move to the grass?

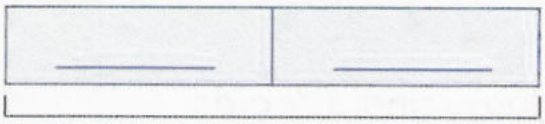


_____

_____

_____ ants move to the grass.

3. Adam has a bag of ribbons. He takes 29 ribbons out of the bag. Now, there are 17 ribbons in the bag.
How many ribbons were in the bag at first?

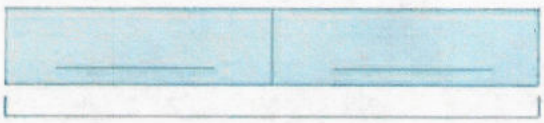


_____

_____

At first, there were _____ ribbons in the bag.

4. Adam has a box of 46 craft sticks.
He uses 28 craft sticks to make a sailboat.
How many craft sticks are not used?



_____

_____

_____ craft sticks are not used.

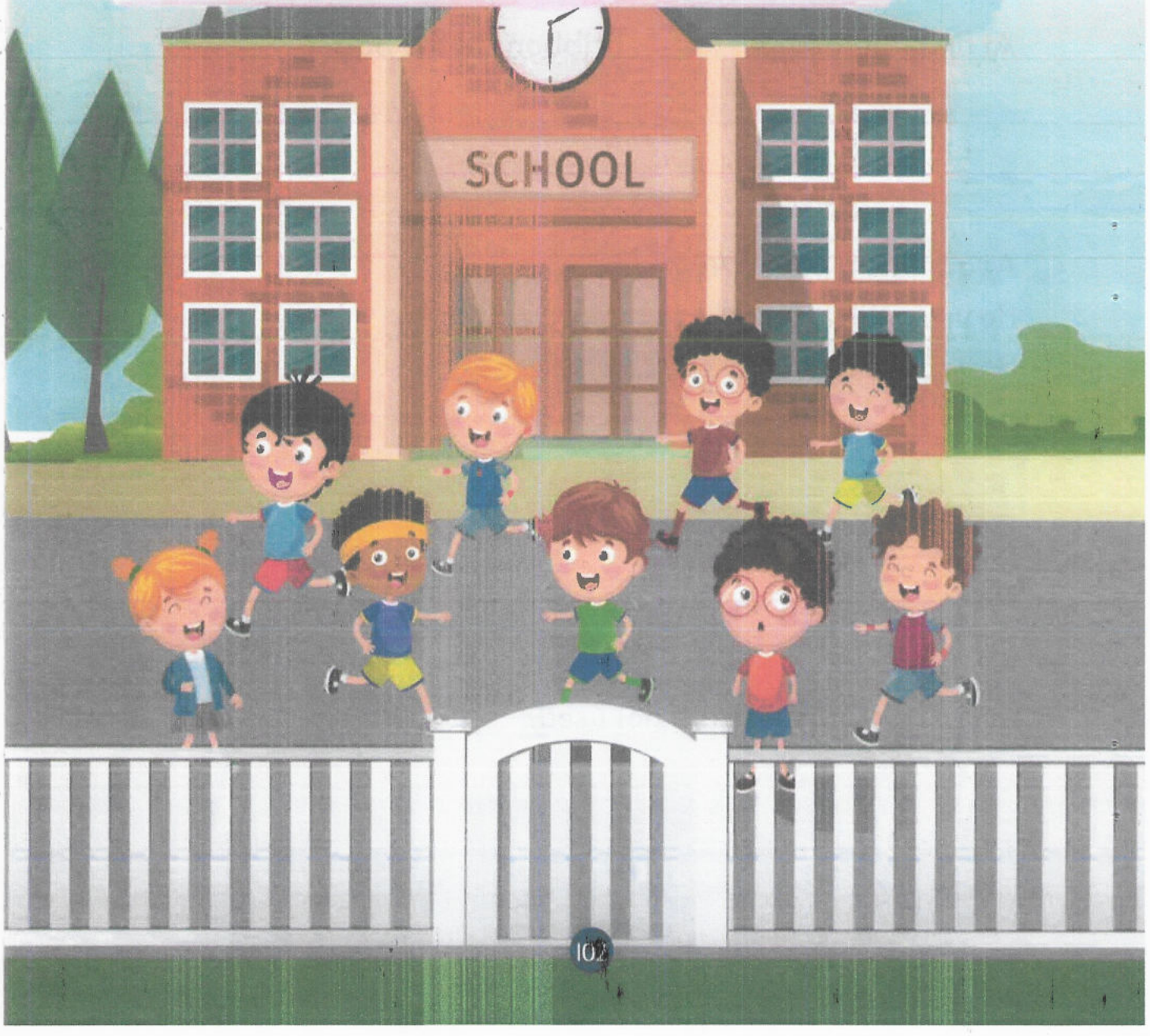
LESSON 17 ADD 3-DIGIT NUMBERS

OBJECTIVE

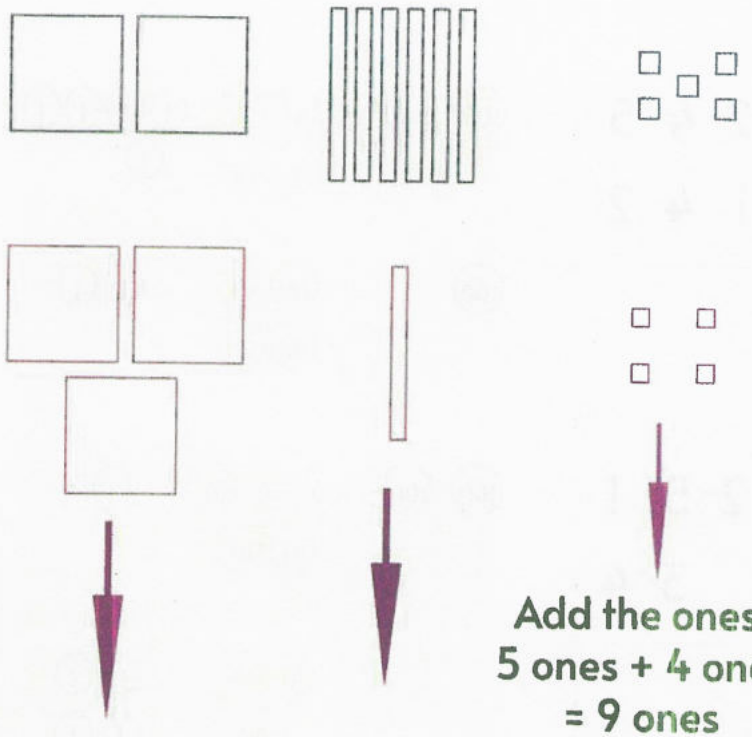
- Use place value blocks and models to add 3-digit numbers.

THINK

In Adam's school, there are 265 boys and 314 girls.
How many students are there in all?
Use place value blocks to find the answer.



LEARN



Add the ones.
5 ones + 4 ones
= 9 ones

Add the tens.
6 tens + 1 ten
= 7 tens

Add the hundreds.
2 hundreds + 3 hundreds
= 5 hundreds

Add the ones.

$$\begin{array}{r} 265 \\ +\ 314 \\ \hline 9 \end{array}$$

Add the tens.

$$\begin{array}{r} 265 \\ +\ 314 \\ \hline 79 \end{array}$$

Add the hundreds.

$$\begin{array}{r} 265 \\ +\ 314 \\ \hline 579 \end{array}$$



So, 265 + 314 = 579.

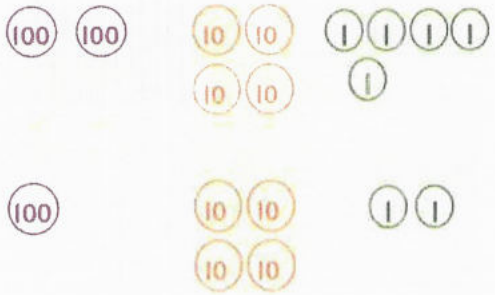
There are _____ students in all.

PRACTICE

A. Add.

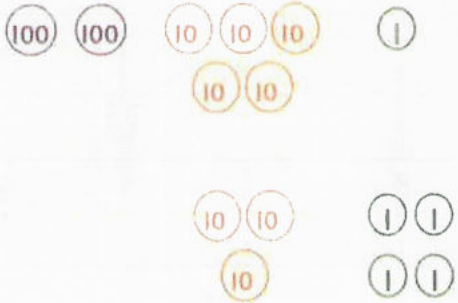
1. Add 245 and 142.

$$\begin{array}{r} 245 \\ +\ 142 \\ \hline \end{array}$$



2. Add 251 and 34.

$$\begin{array}{r} 251 \\ +\ 34 \\ \hline \end{array}$$



B. Add. Draw place value blocks to show your work.

1.

Hundreds	Tens	Ones
2	3	6
+ 2	5	2

Hundreds	Tens	Ones
□□	|||	▫▫▫
□□	|||||	▫▫

2.

	Hundreds	Tens	Ones	Hundreds	Tens	Ones
+	3	2	8			
	1	2	1			

C. Write the sum in each of the following additions.

1.
$$\begin{array}{r} 184 \\ +\ 715 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 546 \\ +\ 333 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 234 \\ +\ 152 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 375 \\ +\ 212 \\ \hline \end{array}$$

D. Consider the following addition problems. Tell what the missing digits are.

1.
$$\begin{array}{r} \square\square6 \\ +\ 4\ 5 \\ \hline 6\ 9\ 8 \end{array}$$

2.
$$\begin{array}{r} 6\square2 \\ +\ 2\ 3 \\ \hline \square\ 6\ 7 \end{array}$$

E. Word Problems

1. A farmer sold 124 bottles of milk on Saturday.
He sold 65 bottles of milk on Sunday.

How many bottles of milk did he sell altogether?

_____

He sold _____ bottles of milk altogether.

2. These lists show the number of fruit sold.

Adam	Jana
257 apples	314 pears
281 plums	221 peaches

a. How many pieces of fruit did Adam sell?

_____

Adam sold _____ pieces of fruit.

b. How many pieces of fruit did Jana sell?

_____

Jana sold _____ pieces of fruit.

c. Who sold more pieces of fruit? _____

How many more?

_____

_____ sold _____ more pieces of fruit.

LESSON 18 SUBTRACT 3-DIGIT NUMBERS

OBJECTIVE

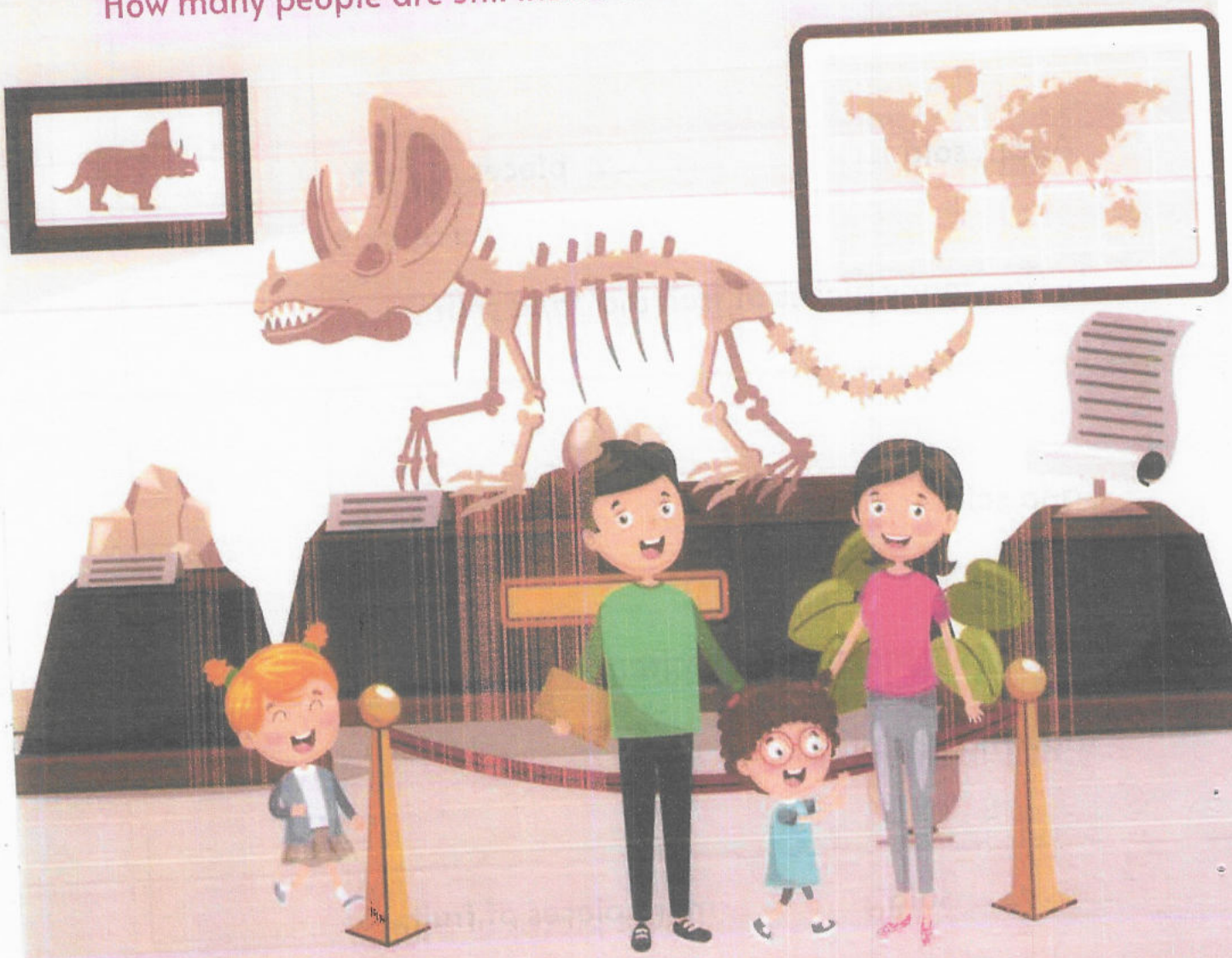
- Use place value blocks and models to subtract 3-digit numbers.

THINK

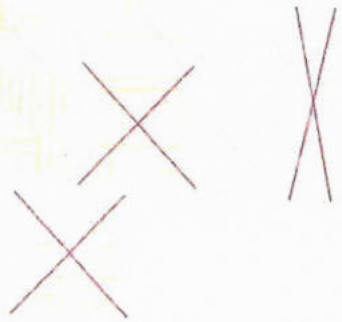
There are 538 people inside the museum.

214 people move outside.

How many people are still inside the museum?



LEARN





Subtract the ones.

$$\begin{array}{r} 538 \\ -\ 214 \\ \hline 4 \end{array}$$

Subtract the ones.
8 ones – 4 ones
= 4 ones

Subtract the tens.

$$\begin{array}{r} 538 \\ -\ 214 \\ \hline 24 \end{array}$$

Subtract the tens.
3 tens – 1 ten
= 2 tens

Subtract the hundreds.

$$\begin{array}{r} 538 \\ -\ 214 \\ \hline 324 \end{array}$$

Subtract the hundreds.
5 hundreds – 2 hundreds
= 3 hundreds



So, 538 – 214 = 324.

_____ people are still inside the museum.

LESSON 18

PRACTICE

A. Work out what follows.

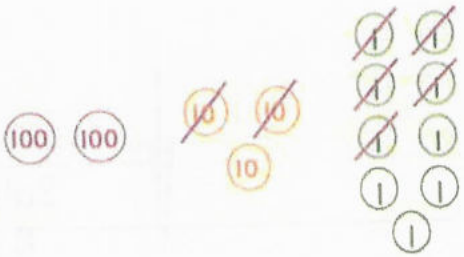
1. Subtract 152 from 376.

$$\begin{array}{r} 376 \\ -\ 152 \\ \hline \end{array}$$



2. Subtract 25 from 239.

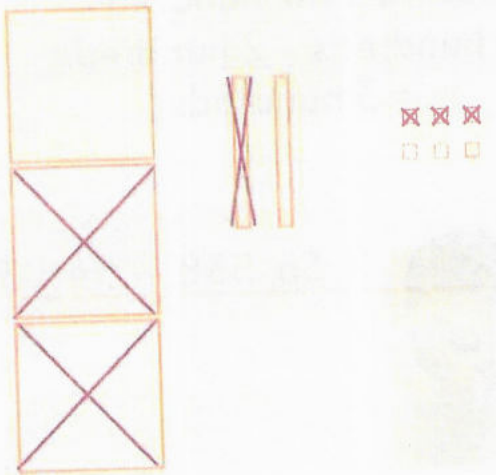
$$\begin{array}{r} 239 \\ -\ 25 \\ \hline \end{array}$$



B. Complete the following subtractions. Draw place value blocks to show your work.

1.

	Hundreds	Tens	Ones
	3	2	6
−	2	1	3



2. Hundreds Tens Ones Hundreds Tens Ones

	3	6	7
−	1	2	3

C. Find the difference in each of the following subtractions.

1. Hundreds Tens Ones

	7	2	8
−	1	0	7

2. Hundreds Tens Ones

	4	5	6
−	2	1	2

3. Hundreds Tens Ones

	9	6	8
−	2	3	5

4. Hundreds Tens Ones

	4	8	9
−	1	4	9

D. Subtract.

1. $\begin{array}{r} 354 \\ -\ 112 \\ \hline \end{array}$

2. $\begin{array}{r} 659 \\ -\ 413 \\ \hline \end{array}$

3. $\begin{array}{r} 468 \\ -\ 460 \\ \hline \end{array}$

E. Find the missing digits. Explain the steps you have followed.

$$\begin{array}{r} 8\ \ 4 \\ -\ \ 5\ 2 \\ \hline 6\ 4 \end{array}$$

F. Word Problems

1. There are 287 people in a hall.
   52 of them are children.
   How many adults are there?

_____

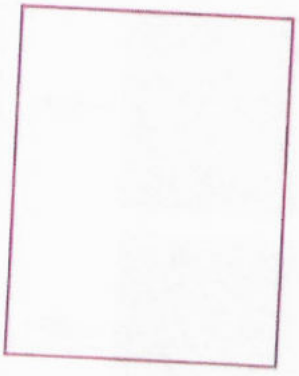
There are _____ adults.



2. In a library, there are 568 English books and
   204 Spanish books.
   How many more English books are there?

_____

There are _____ more English books.



LESSON 19 EQUAL SHARES

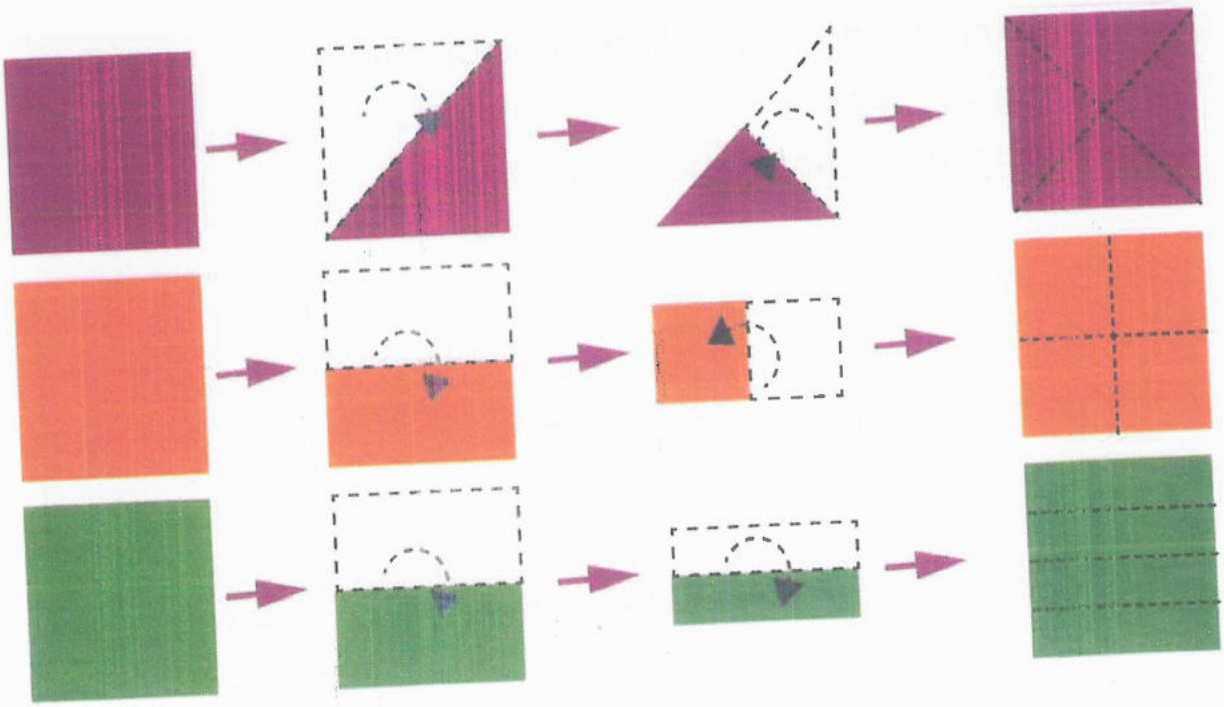
OBJECTIVES

- Divide shapes into two, three, or four equal shares.
- Describe the shares using the words halves, thirds, and fourths.
- Recognize that equal shares of identical wholes do not need to have the same shape.

THINK

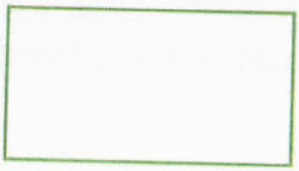
Fold a piece of square paper into halves.

Then fold it into quarters.

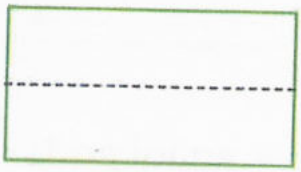


LEARN

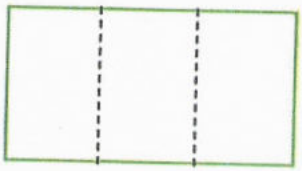
The green rectangle is the whole.



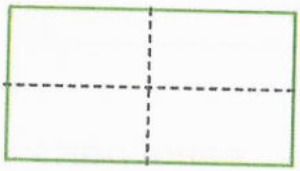
It can be divided into equal parts.



There are 2 halves.
Each part is a half.



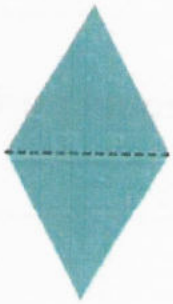
There are 3 thirds.
Each part is a third.

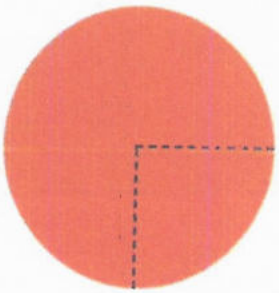


There are 4 fourths.
Each part is a fourth.

PRACTICE

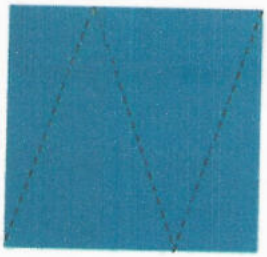
A. Circle the pictures that show halves.

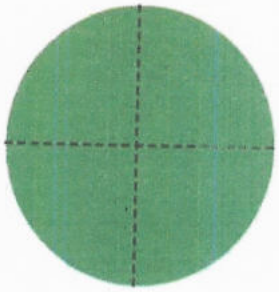
1. 

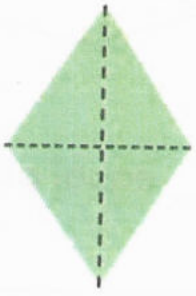
2. 

3. 

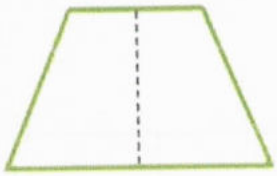
B. Circle the pictures that show quarters.

1. 

2. 

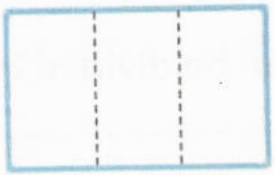
3. 

C. Tell how many equal parts are in the whole. Write halves, thirds, or fourths to name the equal parts.

1. 

_____ equal parts

_____

2. 

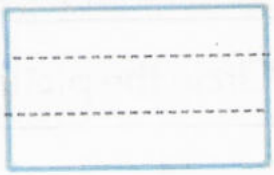
_____ equal parts

_____

3. 

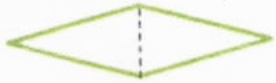
_____ equal parts

_____

4. 

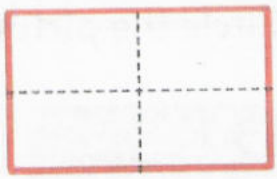
_____ equal parts

_____

5. 

_____ equal parts

_____

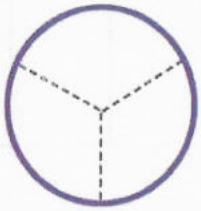
6. 

_____ equal parts

_____

D. Draw to show equal parts.

1. Thirds



2. Halves



3. Fourths



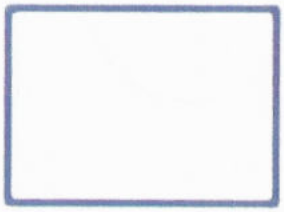
4. Halves



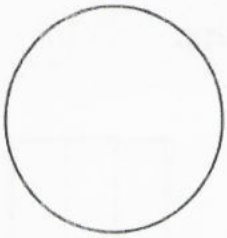
5. Fourths

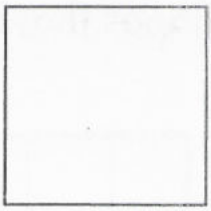


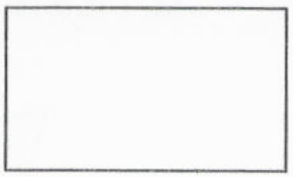
6. Thirds



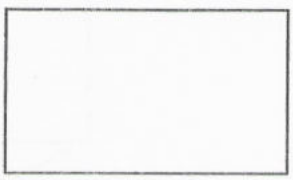
E. Draw to show thirds. Color a third of each shape.

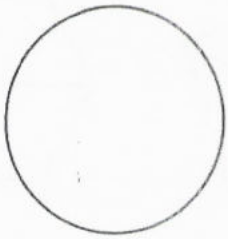
1. 

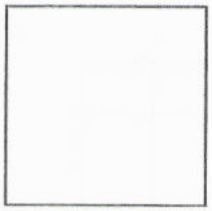
2. 

3. 

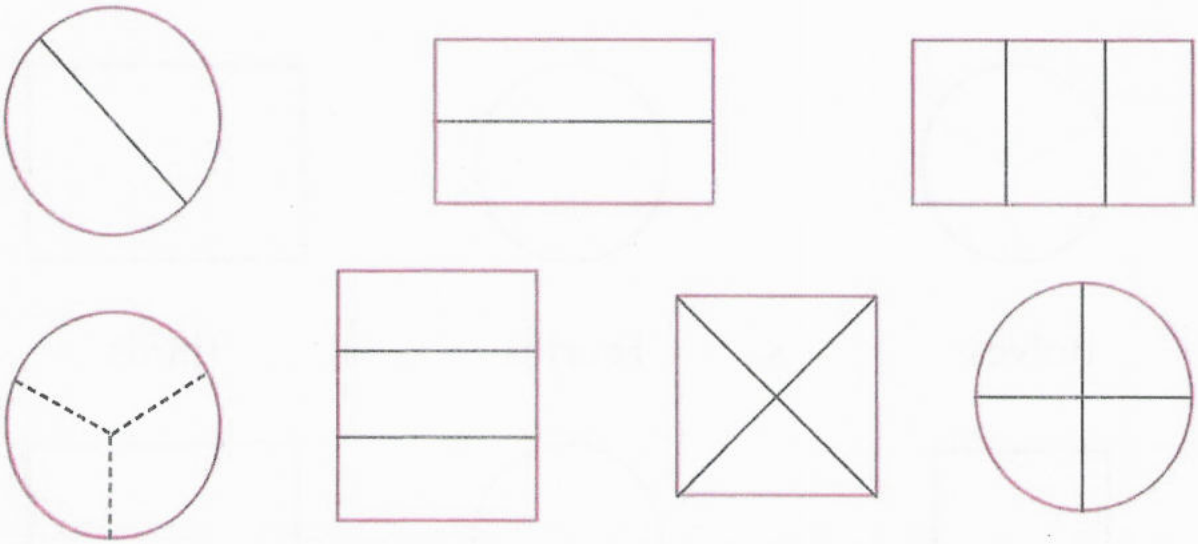
F. Draw to show fourths. Color a fourth of each shape.

1. 

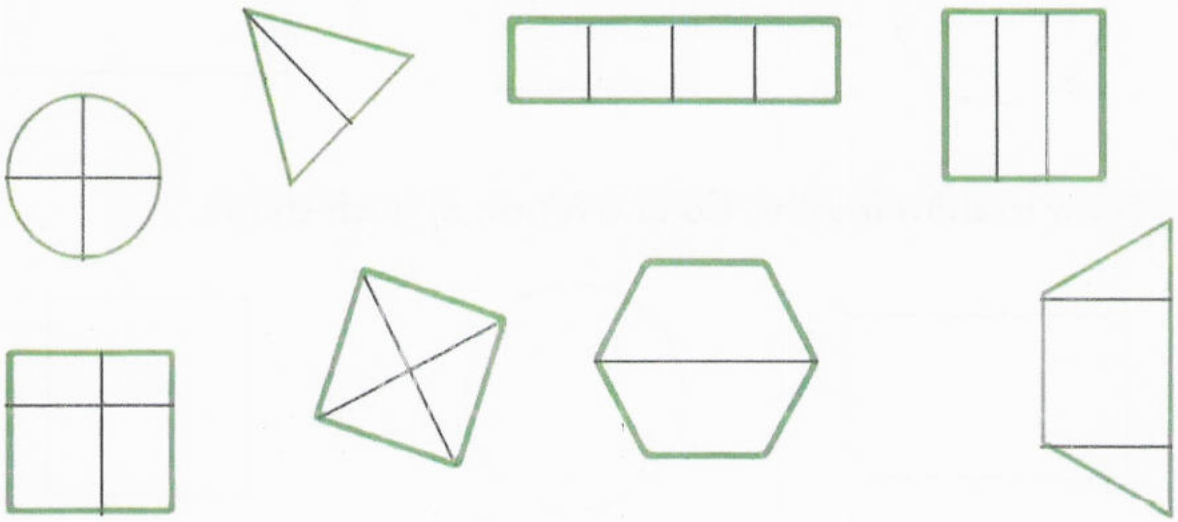
2. 

3. 

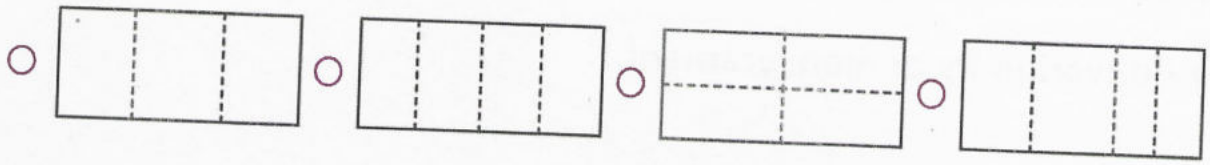
G. Find the shapes that show fourths. Color them green.
Find the shapes that show halves. Color them red.



H. Sort the shapes.
- Draw (X) on the shapes that do not show equal parts.
- Use red to color the shapes that show thirds.
- Use blue to color the shapes that show fourths.

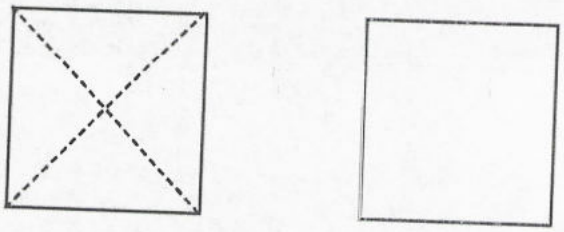


1. Jana wants to cut a piece of paper into fourths. Fill in the bubbles next to all the ways she can cut the paper.

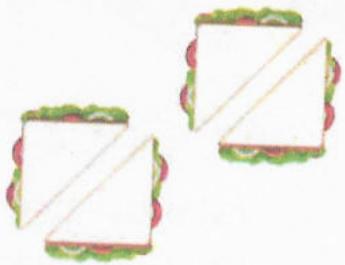


J. Word Problems

1. Adam divides two pieces of paper into the same number of equal shares. Look how he divides the first paper.
Show how he can divide the second paper differently.



2. Mom cuts two sandwiches into halves.
How many equal shares does she get?



She gets _____ equal shares.

LESSON 20 ESTIMATE AND MEASURE LENGTH

OBJECTIVES

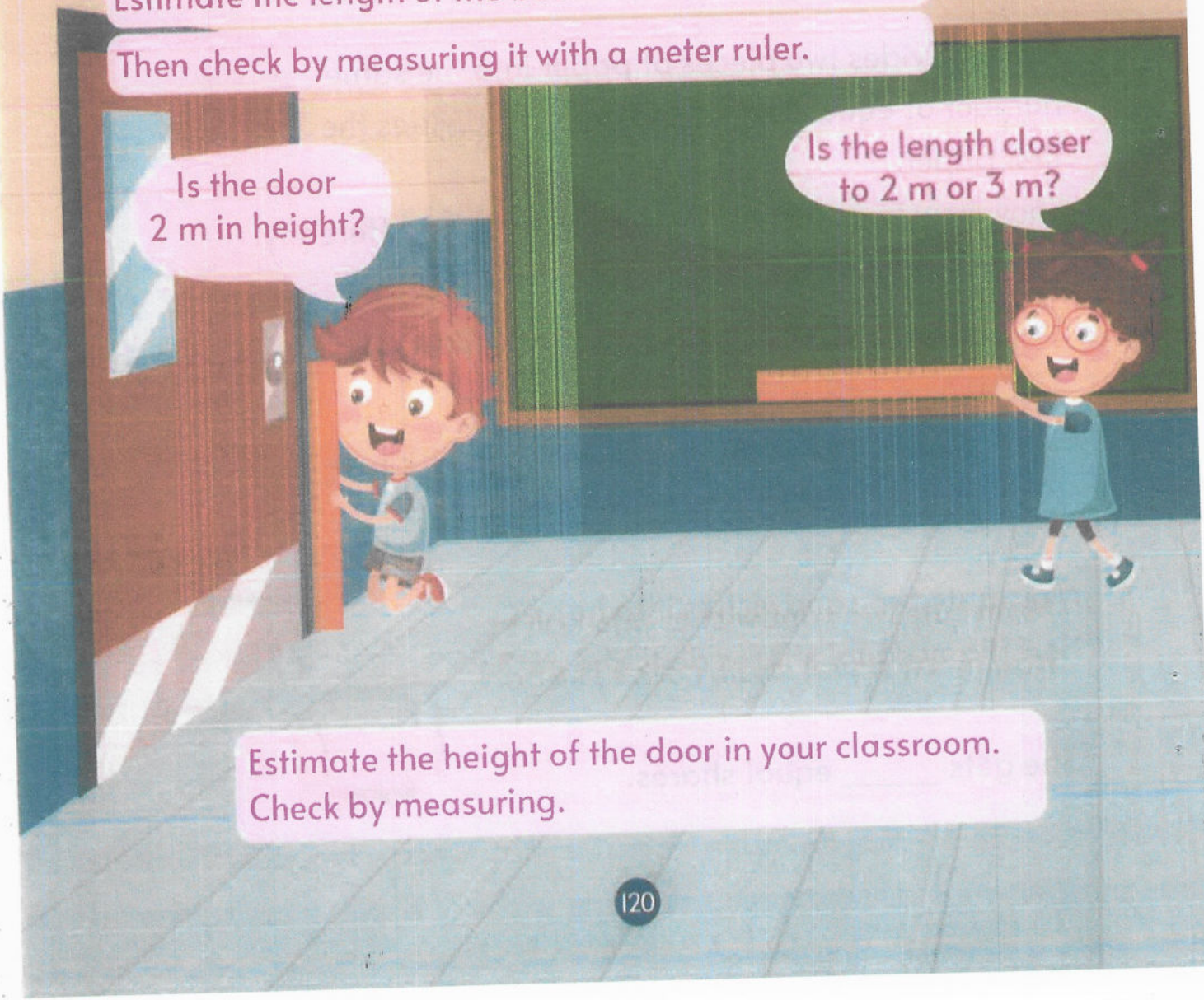
- Use meters and centimeters as units of measurement of length.
- Estimate and measure length.
- Convert units of measurement.

THINK

Get a meter ruler and find out how long 1 meter is.

Estimate the length of the board in the classroom.

Then check by measuring it with a meter ruler.



Estimate the height of the door in your classroom.
Check by measuring.

LEARN

The meter (m) and centimeter (cm) are units of length.

1 m = 100 cm

Convert meters to centimeters.

Adam's height is 1 meter 38 centimeters.

What is his height in centimeters?

1 m 38 cm → 1 m = 100 cm
1 m 38 cm → 38 cm

1 m 38 cm = 100 cm + 38 cm
= 138 cm



Adam's height is 138 centimeters.

PRACTICE

A. The length of a car is 4 meters 56 centimeters. Find the length of the car in centimeters.

4 m 56 cm

- ☐ m = ☐ cm
- ☐ cm

4 m 56 cm = ☐ cm + ☐ cm

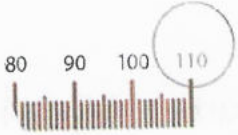
= ☐ cm

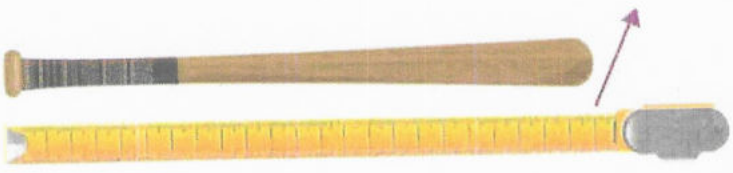
The length of the car is ☐ centimeters.

B. Complete.

The baseball bat is ☐ centimeters long.

It is ☐ meter ☐ centimeters long.





C. Jad's height is 1 m 25 cm.

1 m 25 cm is ☐ cm more than 1 m.

1 m 25 cm = ☐ cm

D. Complete the following.

1. Write 2 m in centimeters.

   2 m = ☐ cm

2. Write 300 cm in meters.

   300 cm = ☐ m

3. Walk 5 steps.

   Measure the distance in meters and centimeters.
   Then write the distance in centimeters.

E. Write in centimeters.

1. 1 m 90 cm = ☐ cm
2. 1 m 55 cm = ☐ cm
3. 2 m 86 cm = ☐ cm
4. 2 m 89 cm = ☐ cm
5. 3 m 8 cm = ☐ cm
6. 4 m 6 cm = ☐ cm

F. A car is 395 cm long.
Write the length in meters and centimeters.

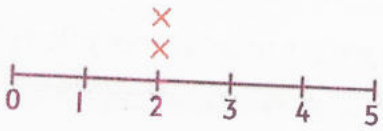
395 cm = ☐ m ☐ cm

G. Write in meters and centimeters.

1. 180 cm = ☐ m ☐ cm
2. 195 cm = ☐ m ☐ cm
3. 262 cm = ☐ m ☐ cm
4. 299 cm = ☐ m ☐ cm
5. 304 cm = ☐ m ☐ cm
6. 409 cm = ☐ m ☐ cm

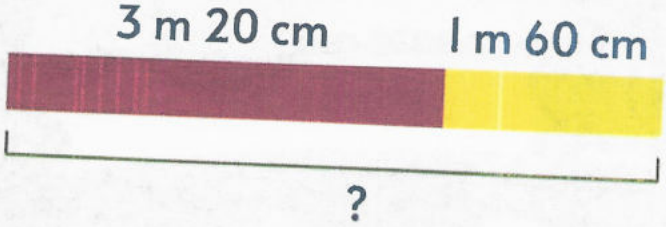
H. Measure the length of each stick in cm. Use the lengths to make a line plot.





I. Word Problem

Adam has a piece of red ribbon 3 m 20 cm long and a piece of yellow ribbon 1 m 60 cm long. Find the total length of the ribbons.



3 m 20 cm + 1 m 60 cm = ☐ m ☐ cm

The total length of the ribbons is ☐ m ☐ cm.

LESSON 21 GRAPHS

OBJECTIVE

- Use a picture graph to show data.

THINK

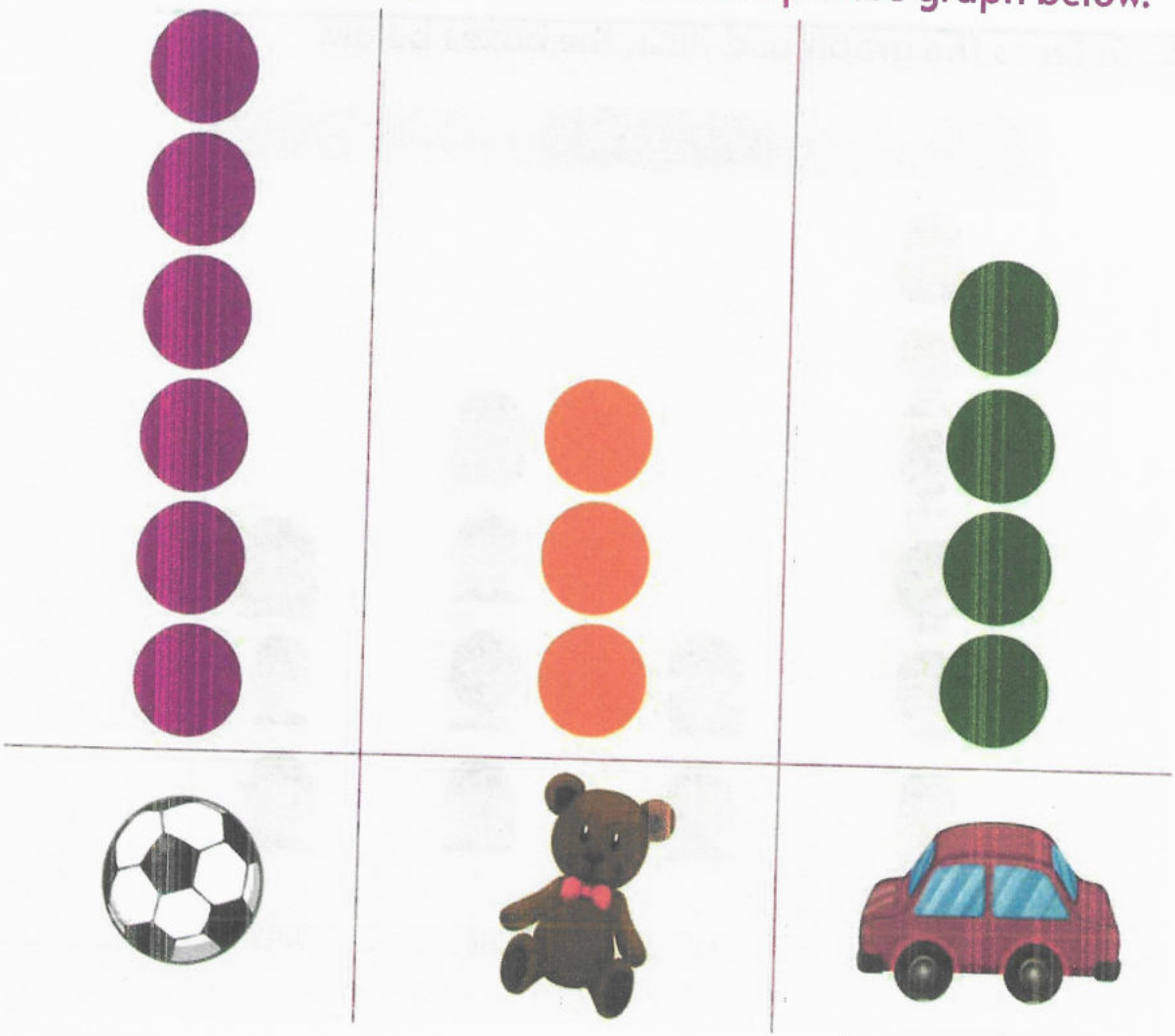
Place a color chip on each toy.
Use the same color for each type of toy.

How many toys of each type are there?



LEARN

We can organize the previous data in the picture graph below.



The picture graph shows the number of each type of toy.

How many balls are there? _____

How many more cars than teddy bears are there? _____

How many fewer teddy bears than balls are there? _____

How many toys are there altogether? _____

PRACTICE

A. Refer to the graph and fill in the boxes below.



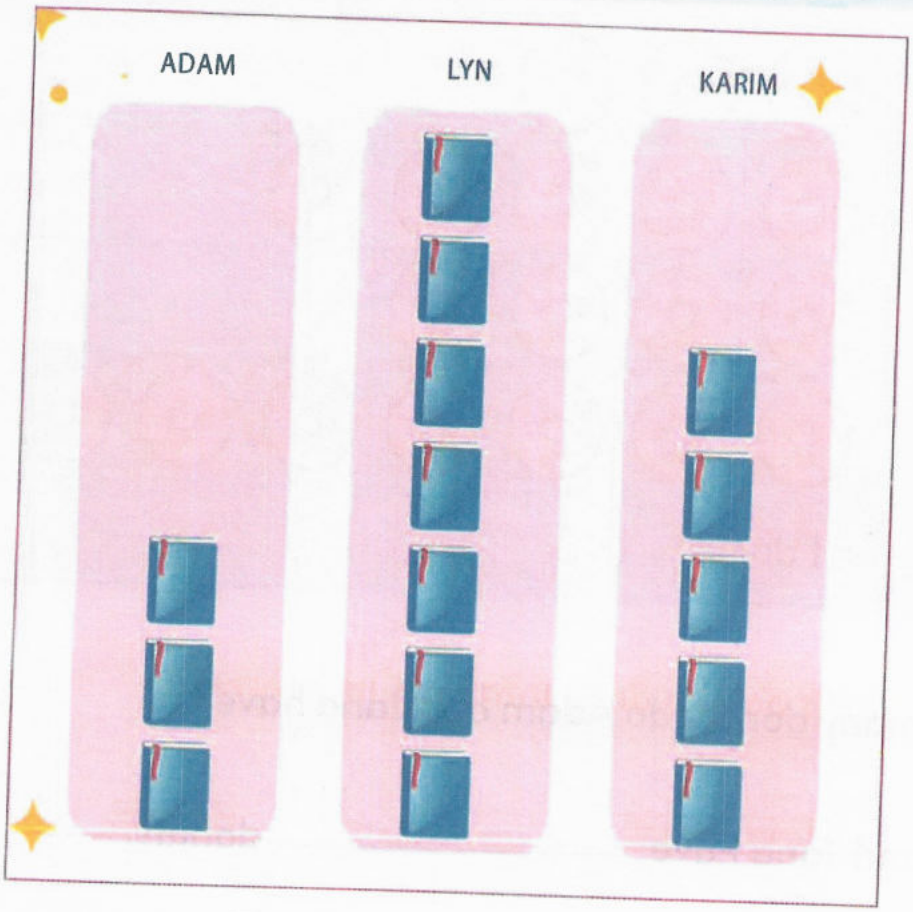
☐ children have their birthdays in July.

☐ children have their birthdays in May.

☐ children have their birthdays in June.

☐ children have their birthdays in April.

B. Adam, Lyn, and Karim like to read books.
This picture graph shows the number of books they read last week.
Complete the following sentences with the right answers.



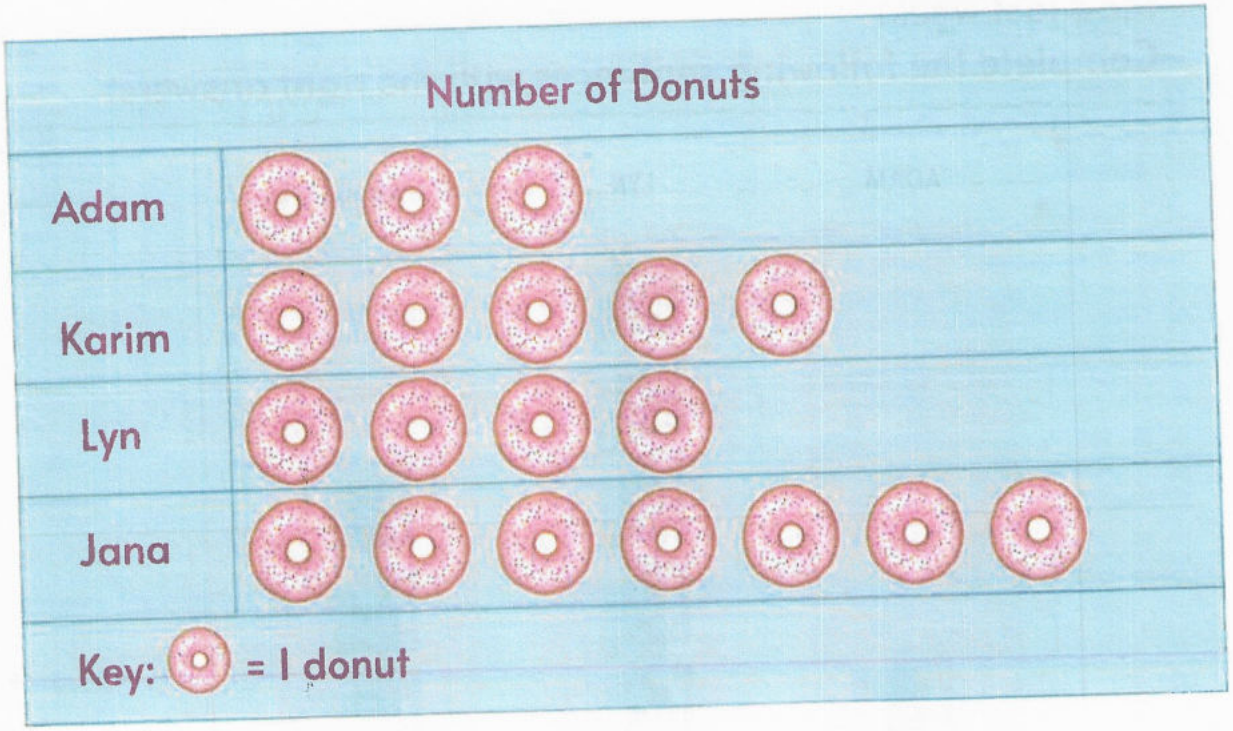
Adam read ____ books.

____ read the biggest number of books.

Karim read ____ more books than Adam.

The kids read ____ books altogether.

C. Use the picture graph to answer the questions.



1. How many donuts do Adam and Jana have?

Adam and Jana have _____ donuts.

2. How many more donuts does Karim have than Adam?

Karim has _____ more donuts than Adam.

3. Mr. Jad has the same number of donuts as the four children. How many donuts does Mr. Jad have?

Mr. Jad has _____ donuts.

D. Use the picture graph to answer the questions.

Favorite Season								
Spring	☺	☺	☺	☺	☺	☺		
Summer	☺	☺	☺	☺	☺	☺	☺	☺
Fall	☺	☺	☺	☺				
Winter	☺	☺	☺	☺	☺	☺	☺	

Key: ☺ = 1 child

1. Which season is the children's least favorite?

_____ is the children's least favorite season.

2. How many more children prefer spring to fall?

_____ more children prefer spring to fall.

3. How many children don't like winter?

_____ children don't like winter.

4. How many children choose their favorite season?

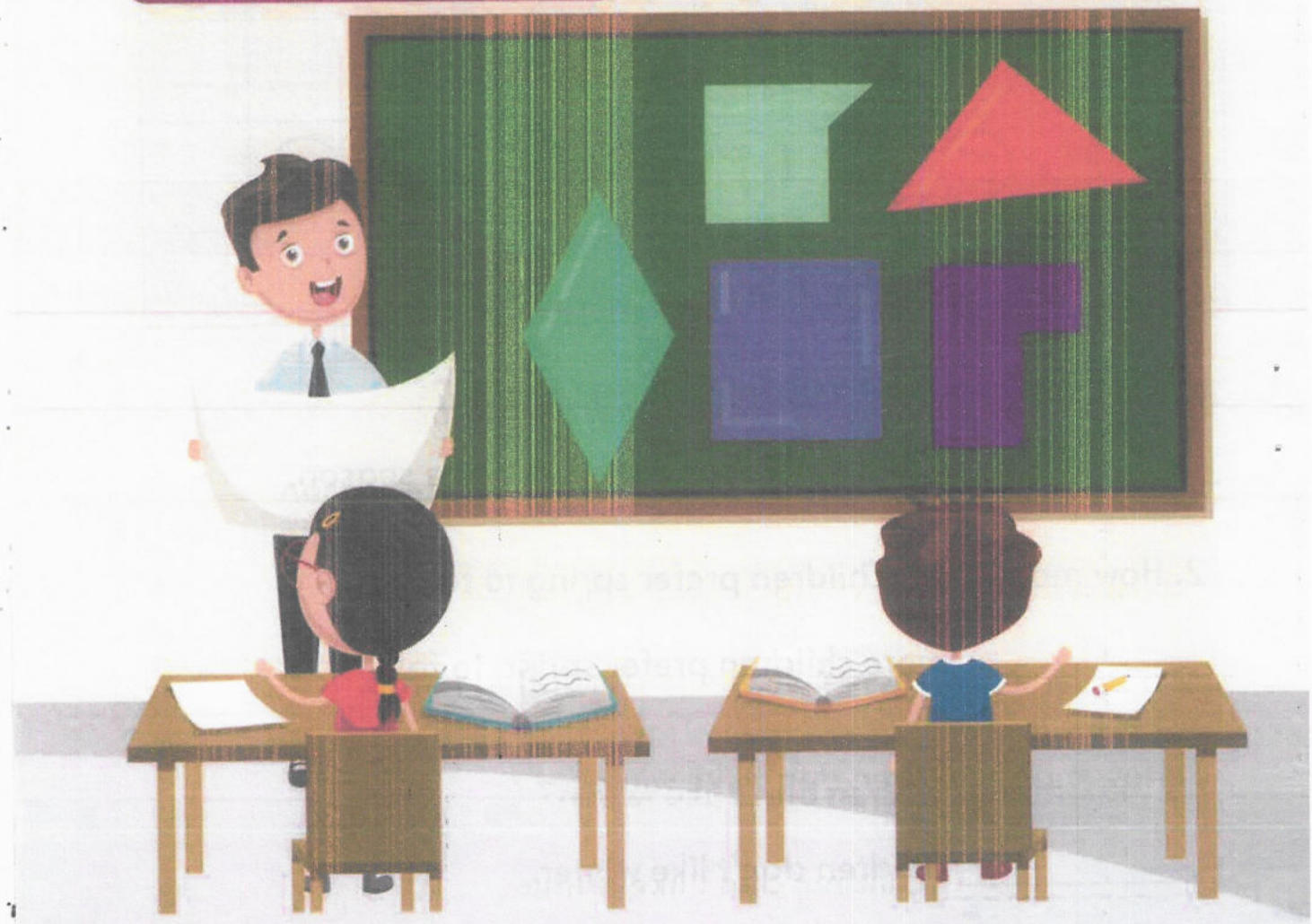
_____ children choose their favorite season.

LESSON 22 2-DIMENSIONAL SHAPES

OBJECTIVE

- Name a 2-dimensional shape by counting the number of vertices and sides.

THINK

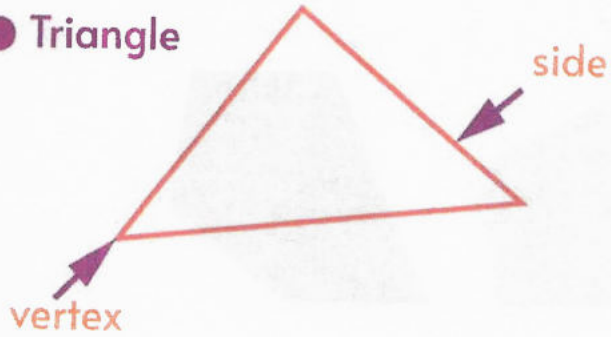


What shapes can you name?

LEARN

You can count sides and vertices to name two-dimensional shapes. Look at how many sides and vertices each shape has.

- Triangle



3 sides

3 vertices

- Quadrilateral



4 sides

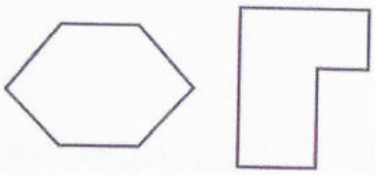
_____ vertices

Pentagon

_____ sides

_____ vertices

Hexagon



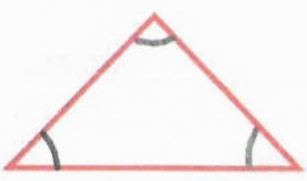
_____ sides

_____ vertices

- When two sides of a shape meet, they form an angle.



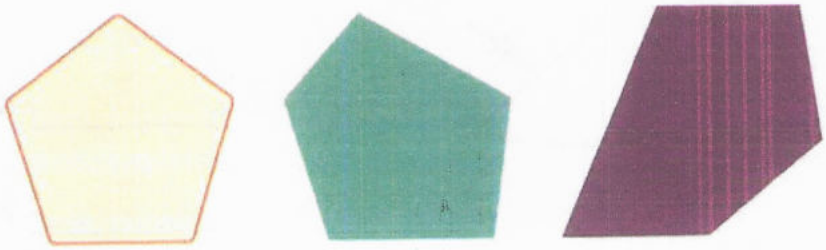
- A triangle has 3 angles.



PRACTICE

A. Write the number of sides, vertices, and angles of the shapes.

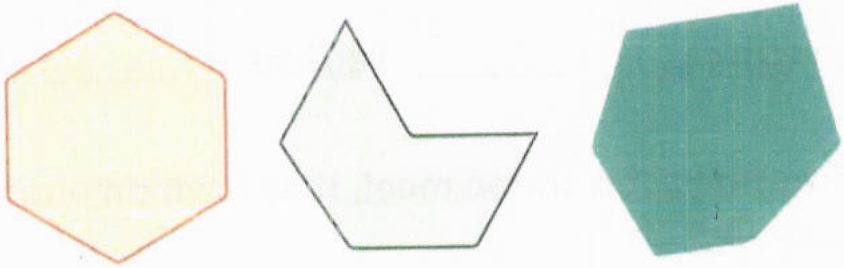
1. These shapes are pentagons.



Each pentagon has _____ sides,

_____ vertices, and _____ angles.

2. These shapes are hexagons.

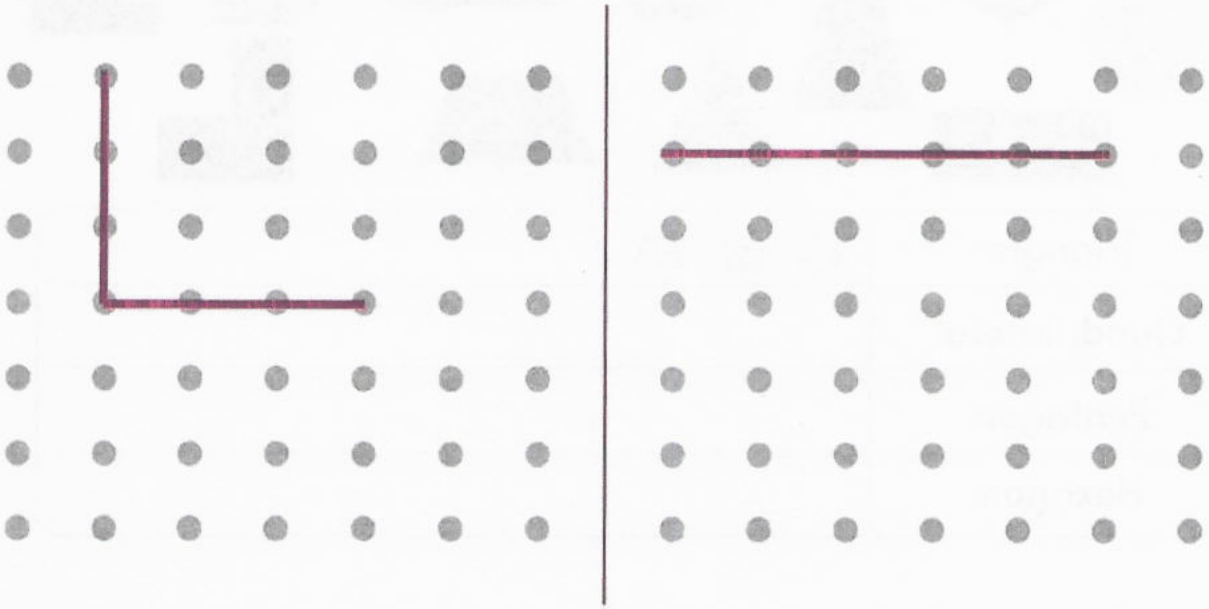


Each hexagon has _____ sides,

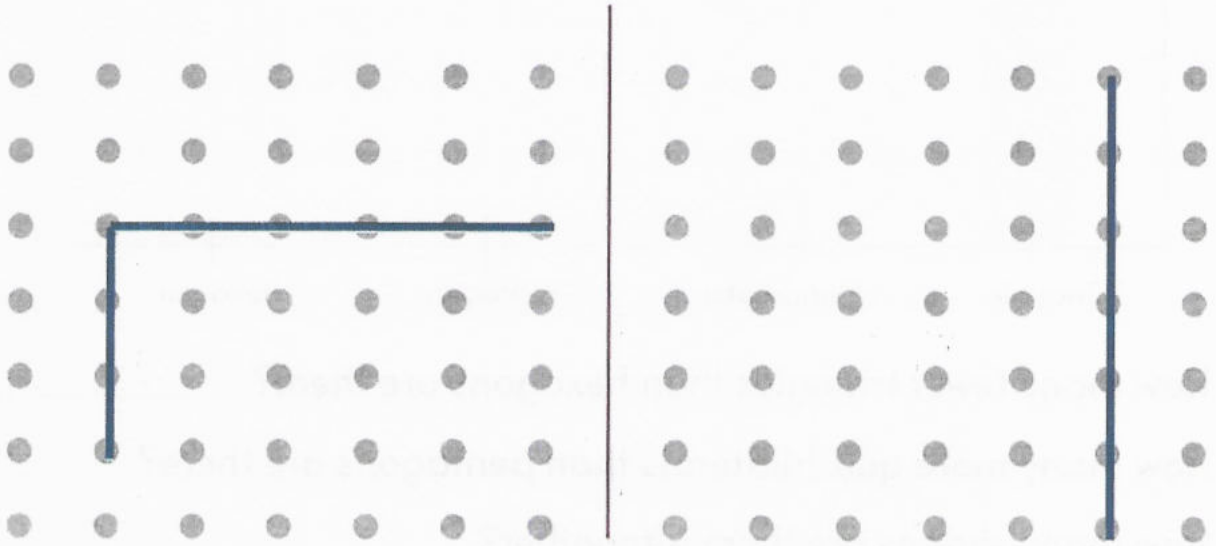
_____ vertices, and _____ angles.

B. Draw to complete the shapes.

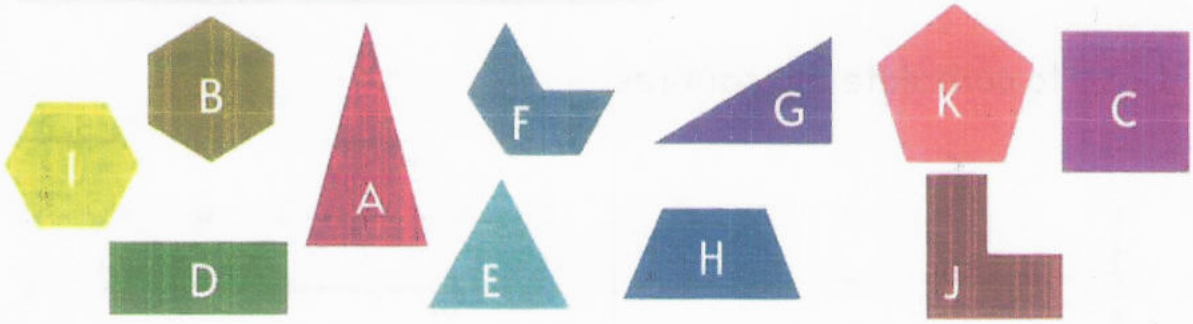
1. Draw to complete the squares.



2. Draw to complete the rectangles.



C.1. Complete the picture graph.



Triangle	
Quadrilateral	
Pentagon	
Hexagon	

2. Complete the bar graph.

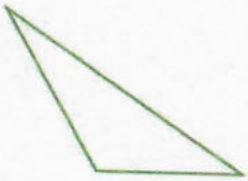


How many fewer triangles than hexagons are there? _____

How many more quadrilaterals than pentagons are there? _____

How many shapes are there altogether? _____

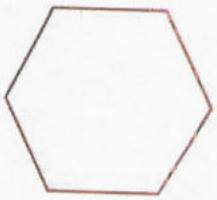
D. Write the number of sides, vertices, and angles of these shapes.

1. 

_____ sides

_____ vertices

_____ angles

2. 

_____ sides

_____ vertices

_____ angles

3. 

_____ sides

_____ vertices

_____ angles

E. Guess the shape.

Adam draws a shape that has 4 sides.
It's neither a square nor a rectangle.

Help Adam draw the shape.



LESSON 23 3-DIMENSIONAL SHAPES

OBJECTIVE

- Recognize three-dimensional shapes: cube, rectangular prism, cone, cylinder, and sphere.

THINK



Do you agree with Jana? Explain your idea.

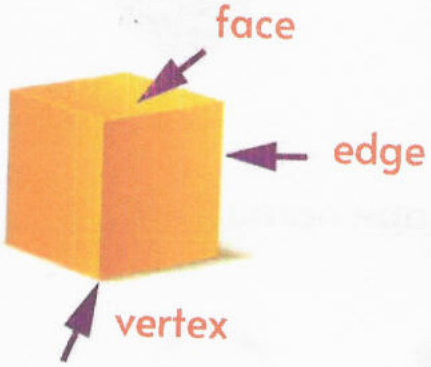
LEARN

- These are 3-dimensional shapes.



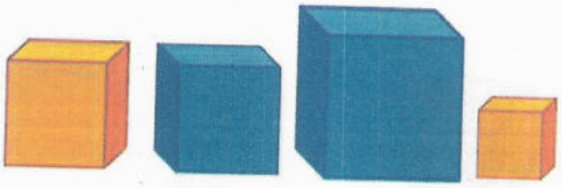
Sphere Cone Cylinder Cube Rectangular Prism

- The faces of a cube are squares.



The vertices are the corner points of the cube.

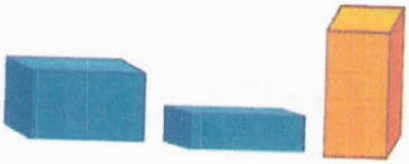
- These shapes are cubes.



Each cube has _____ faces, 12 edges, and 8 vertices.

- These shapes are rectangular prisms.

Each rectangular prism has _____ faces, _____ edges, and _____ vertices.



LESSON 23

PRACTICE

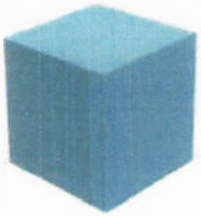
A. Circle each ●.







B. Circle each ■.



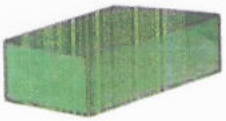
C. Circle the object that matches the shape name.

1. Sphere





2. Cube



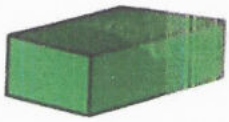


3. Cylinder






4. Rectangular Prism







5. Cone



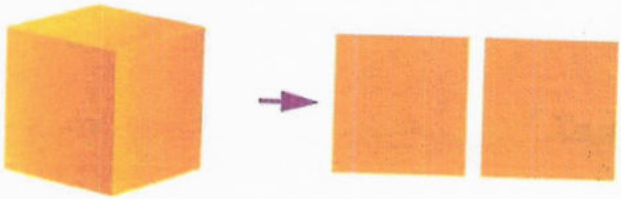




D. Adam draws the flat faces of the rectangular prism. Help Adam complete drawing the flat faces of the cube.







E. Answer the questions below.



A



B



G



C



E



F



D

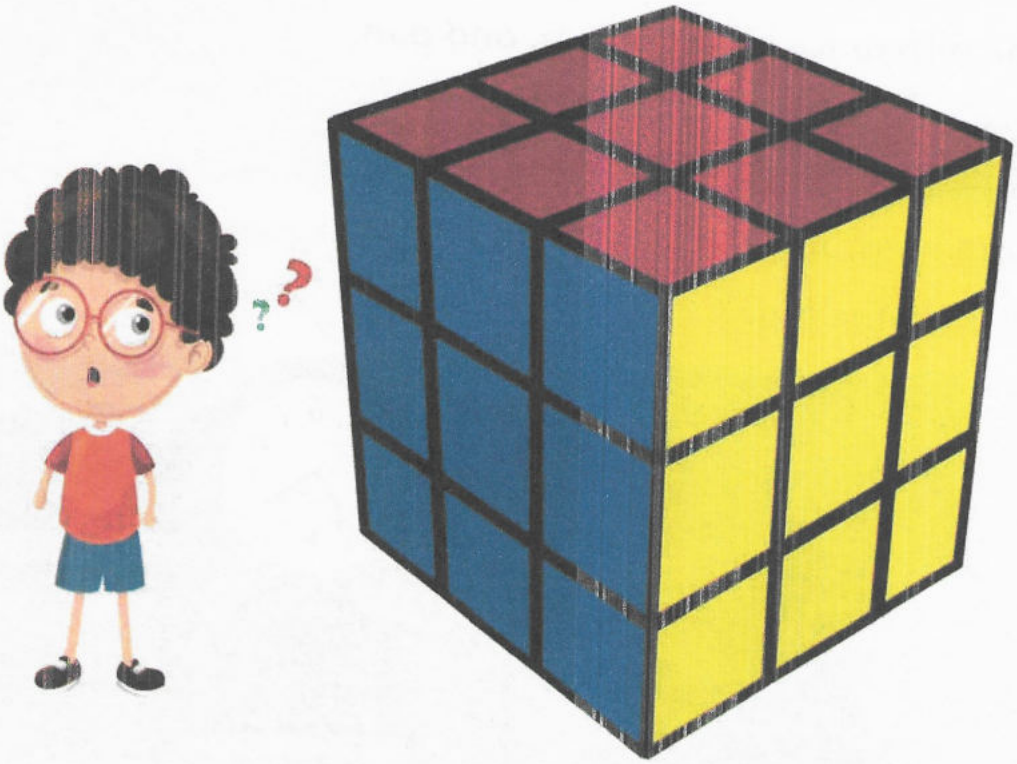
1. Which objects have a sphere shape? _____

2. Which objects have vertices? _____

3. Which objects have flat and curved surfaces? _____

4. Which object has a cube shape? _____

F. Help Adam count the small cubes in the Rubik's cube.



There are _____ small cubes.

LESSON 24 TELL TIME TO 5 MINUTES

OBJECTIVES

- Tell time to the nearest 5 minutes.
- Tell the difference between a.m. and p.m.

THINK

Every morning, Jana arrives at school at the same time.

Can you tell the time?



LEARN

To tell time to 5 minutes, count by 5s at each number of the clock face.

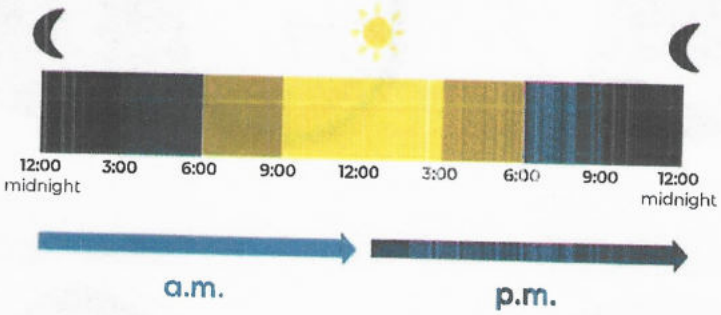
Count zero at 12. 0, 5, 10, 15, _, _, _, _, _, _, _, _, _

7:20



- Each line represents 1 minute.
- There are 60 lines because there are 60 minutes in an hour.

60 minutes = 1 hour
30 minutes = 1/2 an hour
15 minutes = 1/4 an hour



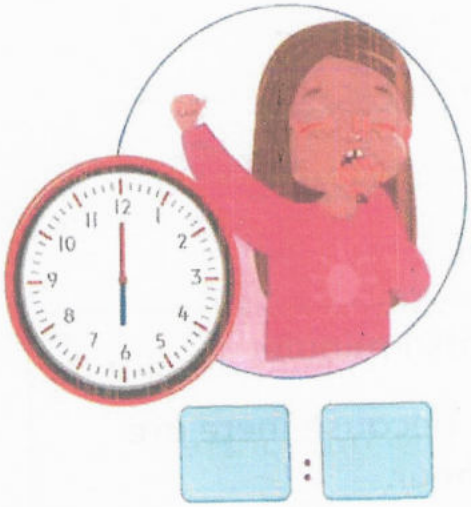
Midnight is 12:00 at night. The time after midnight and before noon is written with a.m.

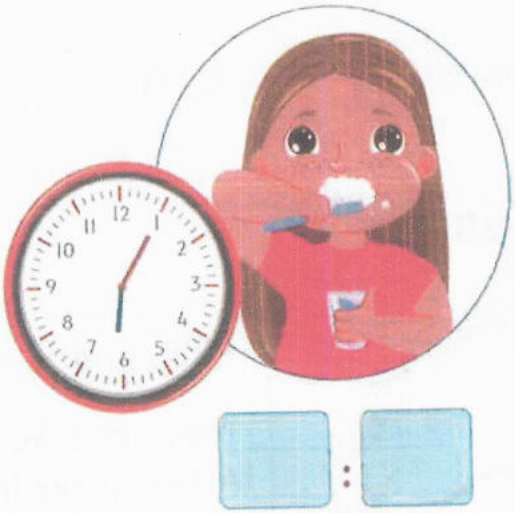
Noon is 12:00 in the daytime. The time after noon and before midnight is written with p.m.

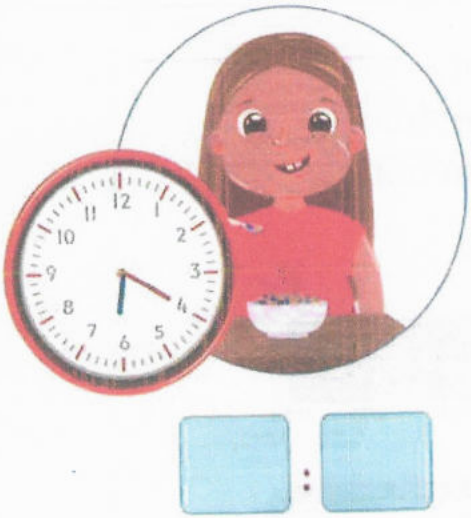
Jana arrives at school at _____ a.m.

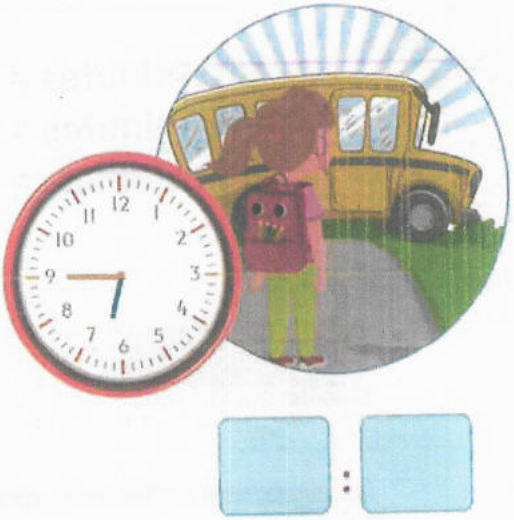
PRACTICE

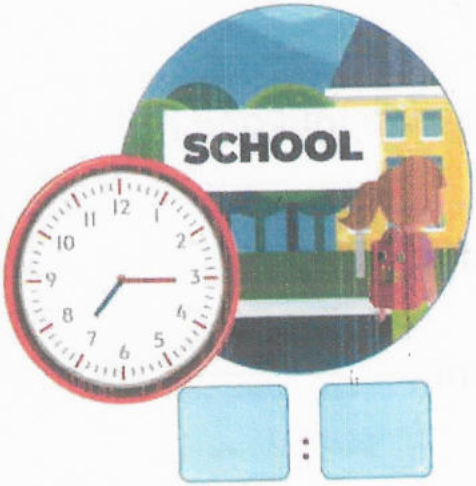
A. What time is it?













B. Read the event and decide if it happens in the a.m. or p.m. Color the matching box.

Eat dinner	a.m.	p.m.
See the sunrise	a.m.	p.m.
Go home	a.m.	p.m.
Go to school	a.m.	p.m.
Eat breakfast	a.m.	p.m.
Eat lunch	a.m.	p.m.

C. Complete the clocks to match the same time.

1. 

6:45

2. 

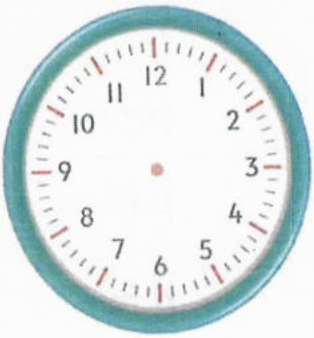
3:25

3. 

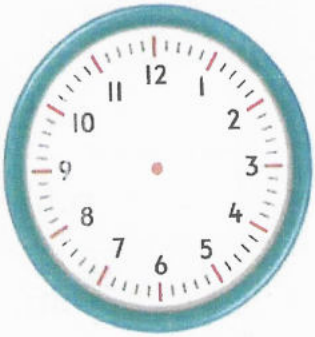
5:40

4. 

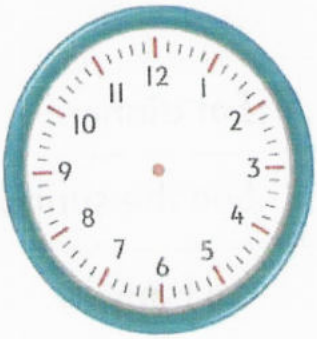
D. Draw the hands of the clock that match the given time.

1. 

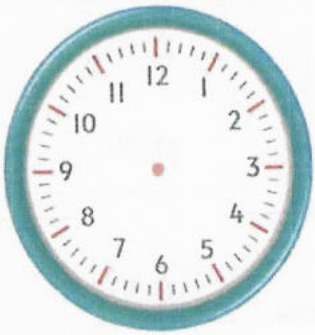
12:20

2. 

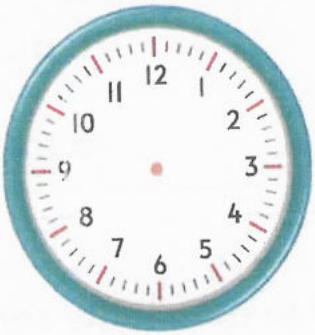
7:40

3. 

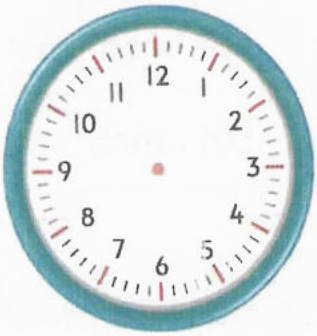
11:00

4. 

2:50

5. 

10:10

6. 

8:15

E. Choose the correct time.

1. 

5:30 | 5:00 | 5:25

2. 

4:15 | 4:30 | 4:00

3. 

9:00 | 9:50 | 9:20

F. Word Problems

1. Adam went to play.
When he looked at the clock, the minute hand was on 5, and the hour hand was between 3 and 4.



What time was it?

It was _____.

2. Lyn goes to the zoo at 4:15 p.m.
Jana goes to the zoo at 4:30 p.m.

Who goes to the zoo first?

_____ goes to the zoo first.

