

Name _____

Date _____

Coins, Coupons, and Combinations

NOW What Do You See?

What do you imagine when you read problems like these? Show how you would solve them.

- 1** Ahmed had 27 roasted pumpkin seeds in his pocket. But there was a hole in his pocket, and 11 of the seeds got lost! How many pumpkin seeds are in his pocket now?

- 2** Sammi had 42 marbles in her collection, but somehow some of them got lost. Now she has only 34 marbles. How many marbles did Sammi lose?



Family Connection

Subtraction situations are more difficult for students to follow and represent than addition situations are. Therefore, it is vitally important that students have opportunities to visualize problem situations by using materials or by drawing pictures.

Questions you might ask your child before he or she tries to solve the first problem: "Will the answer to this problem be more than 27 or less than 27? Why?"

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Coins, Coupons, and Combinations

Related Problems

Read both problems.
Then solve them
using numbers.

Family Connection

In some math programs, students are taught to look for “key words” (such as **left** and **in all**) that will tell them which operation to use to solve a problem. In **Investigations**, students learn that problems such as the first one may be solved either by subtracting the smaller number from the bigger number or by adding on to the smaller number to make the bigger number.

1 There were 27 second and third graders in the pool. When 11 children got out of the pool, how many children were left in the pool?

2 There were 11 second graders and 16 third graders in the pool. How many children in all were in the pool?

3 What is the same about these two problems?

Mixed Review and Test Prep

4 Which number combination does **not** make 12?

$7 + 5$

(A)

$8 + 4$

(B)

$9 + 3$

(C)

$10 + 1 + 0$

(D)

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Coins, Coupons, and Combinations**Exploring the 100 Chart**

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

Family Connection

As a class, students worked together to fill in missing numbers on the Hundred Number Wall Chart. Then they looked for and wrote about the patterns they noticed. It is very important that students become familiar with patterns on the 100 Chart. As they do, they will come to understand the structure of 100, one of the landmarks in the base-ten numeration system.

Fill in the missing numbers.

1					55				59
					65				69

2					85				89
					95				99

Mixed Review and Test Prep

- 3 Which addition or subtraction does **not** make 100?

$101 - 1$

(A)

$99 + 1$

(B)

$98 + 2$

(C)

$98 - 2$

(D)

Name _____

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Coins, Coupons, and Combinations**How Far from 100?**

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

Family Connection

Tools such as the 100 Chart can help students to visualize groups of 10 and the distance between two numbers. When calculating the distance (or difference) between two numbers, some students count up or back by 1's; others, by 10's and then 5's, or by 10's and then 1's (depending on the numbers being compared). **Questions you might ask your child:** "Is it helpful to have the counting-by-5's and counting-by-10's numbers shaded on the 100 Chart? Why?"

- 1 How far is it from 65 to 70? _____
- 2 How far is it from 65 to 80? _____
- 3 How far is it from 65 to 90? _____
- 4 How far is it from 65 to 100? _____
- 5 How far is it from 65 to 60? _____
- 6 How far is it from 65 to 50? _____
- 7 How far is it from 65 to 40? _____
- 8 How far is it from 65 to 30? _____

Interesting Tidbit

Centipedes are thought to have 100 legs. In fact, some centipedes have as few as 30, and others have more than 100!



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Putting Together and Taking Apart

Roger's Tower

Roger used 62 blocks to build his highest tower ever.

But then his baby brother came in and knocked over 13 of them!

How many blocks were still standing?
Will you add or subtract to find out?

Family Connection

As students continue to work on story problems, it is important not to label them as "addition" or "subtraction" problems. Although some students might see a problem like the one on this page as a "take away" problem, others (like Trevor) find that counting up (adding up) makes more sense. How does your child solve this kind of problem?



I counted all the blocks that were left like this: 1, 2, 3, ..., all the way to 49!



I counted backward from 62 like this: 62 take away 10 is 52. And 52 take away 2 is 50. And 50 take away 1 is 49.

Trevor decided to add.

Ella decided to subtract.

- 1** What is different about the ways Trevor and Ella solved this problem?

- 2** What are some other ways you could solve this problem?

Putting Together and Taking Apart**Stuffed Animals**

Kari had 23 stuffed animals.

Then she bought more at a garage sale.

Now Kari has 32 stuffed animals.

How many animals did Kari buy at that sale?

Family Connection

Students have been working on a new kind of problem in which they need to figure out how much was added to one quantity to make another quantity. The questions on this page will help your child visualize and understand this kind of problem.

- 1 Draw a picture to show what this math story looked like at the beginning.

- 2 What happened next?

- 3 What do you need to figure out?

- 4 Finish and circle the problem that matches the story.

$23 + 32 = \underline{\quad}$

$23 + \underline{\quad} = 32$

Name _____

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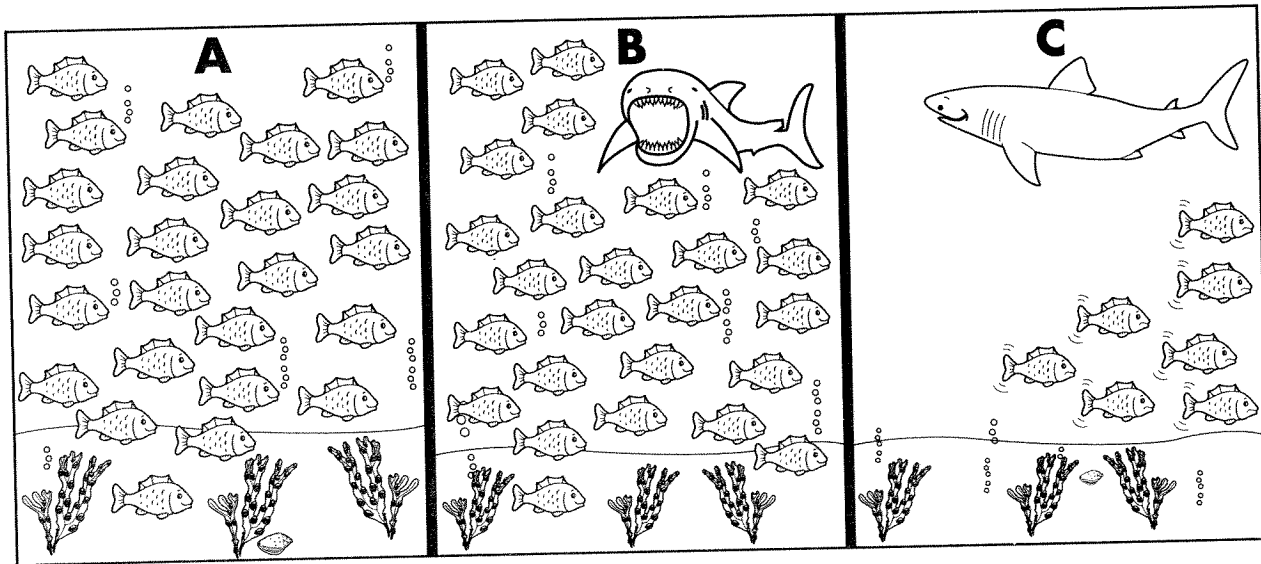
Putting Together and Taking Apart

SHARK! SHARK!

Read this comic-strip number story.

Family Connection

In the previous session, students were asked to find one missing part when the total and the other part are known. Today students were introduced to a new kind of story problem—one that asked them to find the quantity that was “taken away.” How does your child approach this kind of problem? Does he or she understand that the problem started with a known amount, and that some unknown part was removed from that initial quantity?



_____ fish

_____ fish

1 How many fish did the shark eat? _____

2 How did you solve the problem? _____

3 Solve each problem. Then circle the one you think best describes the action in the comic strip.

$$25 - \underline{\quad} = 7 \quad 25 - 7 = \underline{\quad} \quad 25 = \underline{\quad} + 7$$

Name _____

Date _____

Putting Together and Taking Apart

My Own Comic Strip

- 1** Write a story for this problem:

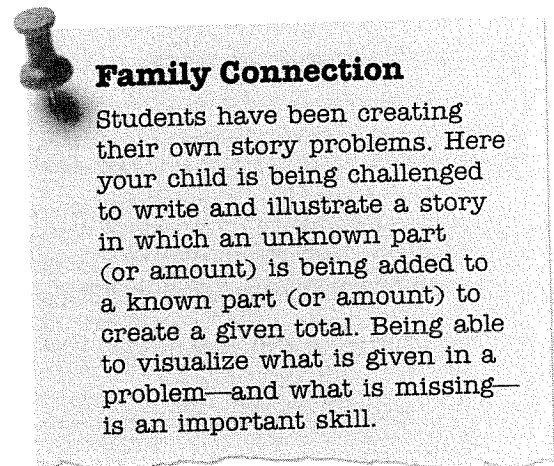
$$36 + \underline{\quad\quad} = 52.$$

Your story can be funny
or silly or serious!

- 2** Draw pictures that show how your story starts,
what happens, and how your story ends.

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- 3** Show or tell how you solved your problem.



Family Connection
Students have been creating their own story problems. Here your child is being challenged to write and illustrate a story in which an unknown part (or amount) is being added to a known part (or amount) to create a given total. Being able to visualize what is given in a problem—and what is missing—is an important skill.

Putting Together and Taking Apart**My Second Comic Strip**

- 1** Write a story for this problem:

$$35 - \underline{\quad} = 22.$$

Your story can be funny
or silly or serious!

Family Connection

On this page, your child is being challenged to write and illustrate a story in which an unknown part (or amount) is being separated from a known part (or amount) to create a given result. Because this kind of story problem is more difficult for children to visualize, you might ask your child to tell you the story before he or she starts to write and illustrate it.

- 2** Draw pictures that show how your story starts, what happens, and how your story ends.

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- 3** Show or tell how you solved your problem.
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-
-

Putting Together and Taking Apart**More Ways to Get to 100!**

How many ways can you make 100?
Each row has to be different!

Family Connection

Students are continuing their work with 100. They have been combining numbers to make 100, and are beginning to write equations that have more than two addends (the numbers being added).

- 1 $10 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 2 $27 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 3 $14 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 4 $34 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 5 $22 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 6 $8 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$
- 7 $11 + \underline{\quad} + \underline{\quad} + \underline{\quad} = 100$

Mixed Review and Test Prep

- 8 How many students have a birthday in May?

- (A) 2
(B) 3
(C) 5
(D) 10

Aug. 14 Bev	May 1 Clint	Nov. 29 Ben
Aug. 11 Andre	May 28 Laure	Nov. 23 Tia
Aug. 19 Luis	May 15 Xiong	
	May 7 Ricky	
	May 1 Lori	

Name _____

Date _____

Putting Together and Taking Apart

How Do YOU Get to 100?

Show how you add each number string.

EXAMPLE:

$$26 + 5 + 4 + 15 + 33 + 10 + 7$$

$$30 + 20 + 40 + 10 = 100$$

Family Connection

As students continue to find ways to make 100, they are learning to look at a whole set of numbers and to group or “chunk” numbers that seem to go together. When adding a set of numbers, some students look for numbers that can easily be combined (for example, combining 15 and 5 to make 20). Other students break apart numbers to simplify them (for example, taking 1 away from 31 in order to easily add 30 to another number—and then adding the 1 back at the end of the operation).

① $15 + 20 + 34 + 16 + 15$ ② $10 + 32 + 15 + 28 + 15$

③ $8 + 12 + 25 + 25 + 30$ ④ $42 + 13 + 15 + 8 + 22$

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Putting Together and Taking Apart

Two "100" Stories

Finish the story to make 100.

- 1** Sarah collected 100 cans last week!

On Monday, she collected 15 cans.

On Tuesday, she collected 25 cans.

On Wednesday, she collected 7 cans.

On Thursday, she collected _____ cans.

On Friday, she collected _____ cans.

- 2** Antonio needs 100 coupons to get a free pizza.

He saved 32 coupons from his pizza party.

His aunt gave him 16.

Robert gave him 28.

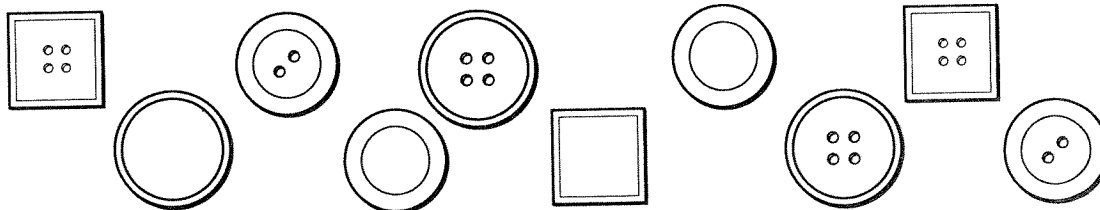
Then his mom gave him _____.

He made it! He has 100!

Family Connection
Students have been writing their own stories about the landmark number 100. **Questions you might ask your child:** "How did you find the missing numbers in Exercise 1?" "Are those the only numbers that work?"

Mixed Review and Test Prep

- 3** How many buttons have **no** holes?



10

(A)

6

(B)

5

(C)

4

(D)