

Checking Your Work with Addition

"I know I sometimes make mistakes when I subtract. So I want a good way to check my answers," said Kathy.

"I use addition to check," said Sara. "In a subtraction problem, I start with a number and subtract something. If I add back what I subtracted, I should get the number that I started with. If I do not, I must have made a mistake."

Kathy used Sara's method to do the problem $621 - 293$. Her answer was 332.

$$\begin{array}{r} 621 \\ -293 \\ \hline \text{Answer } 332 \end{array}$$

She used addition to check her answer.



When I add $293 + 332$ to check, I should get the number I started with, 621. But I get 625. Hmm . . .

$$\begin{array}{r} 621 \\ -293 \\ \hline \text{Answer } 332 \\ \text{Check } 625 \end{array}$$

Adding these two numbers should give 621, the number Kathy started with. Instead she got 625 when she added. Kathy must have made a mistake.

4. Kathy used addition to check these answers. Which are correct and which are incorrect? Tell how you know.

A. $\begin{array}{r} 492 \\ -45 \\ \hline \end{array}$

B. $\begin{array}{r} 867 \\ -759 \\ \hline \end{array}$

C. $\begin{array}{r} 8120 \\ -1156 \\ \hline \end{array}$

Answer $\underline{447}$
Check 492

Answer $\underline{118}$
Check 877

Answer $\underline{6964}$
Check 8120

For more practice, use the *Checking with Addition* page in the *Student Activity Book*.

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4. A and C are correct. Explanation will vary. Students should recognize the addition check should be the same as the minuend (top number) of their subtraction problem. If the total is not the same, then they subtracted incorrectly.

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Name _____ Date _____

Solve the following problems. Think of base-ten pieces as you record your trades.

1.

1000s	100s	10s	1s
		6	9
		- 2	5

 2.

1000s	100s	10s	1s
		7	5
		- 3	8

3.

1000s	100s	10s	1s
	3	4	6
	- 2	2	8

 4.

1000s	100s	10s	1s
	3	8	9
	- 1	9	1

5.

1000s	100s	10s	1s
	5	7	6
	- 3	8	9

 6.

1000s	100s	10s	1s
	6	3	2
	- 4	8	1

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**Subtraction on Recording Sheets (SAB p. 224)
Questions 1–6**

- | | |
|--------|---------|
| 1. 44 | 2. 37 |
| 3. 118 | 4. 198 |
| 5. 187 | 6. 1509 |

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Recording Your Subtraction
(SAB pp. 225–226)

Questions 1–7

1. Nisha took 1 skinny, or ten, away from the 2 tens to make 1 ten and traded it with 10 bits, which added to the 3 ones to make 13 bits.
2. 15
3. 28
4. 223
5. 486
6. 458
7. 1538

Name _____ Date _____

Recording Your Subtraction

Homework

Nisha wanted to solve $423 - 319$. She put out 4 flats, 2 skinnies, and 3 bits.

	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><th>1000s</th><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td>4</td><td>2</td><td>3</td><td></td></tr> <tr><td>-</td><td>3</td><td>1</td><td>9</td></tr> </table>	1000s	100s	10s	1s	4	2	3		-	3	1	9
1000s	100s	10s	1s										
4	2	3											
-	3	1	9										

She realized she could not take 9 bits from 3 bits. So she traded 1 skinny for 10 bits. Then she had 1 skinny and 13 bits.

	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><th>1000s</th><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td>4</td><td>1</td><td>13</td><td></td></tr> <tr><td>-</td><td>3</td><td>1</td><td>9</td></tr> </table>	1000s	100s	10s	1s	4	1	13		-	3	1	9
1000s	100s	10s	1s										
4	1	13											
-	3	1	9										

After the trade, she took away 9 bits. She also took away 1 skinny and 3 flats.

	<table border="1" style="border-collapse: collapse; width: 100px;"> <tr><th>1000s</th><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td>4</td><td>1</td><td>13</td><td></td></tr> <tr><td>-</td><td>3</td><td>1</td><td>9</td></tr> <tr><td></td><td>1</td><td>0</td><td>4</td></tr> </table>	1000s	100s	10s	1s	4	1	13		-	3	1	9		1	0	4
1000s	100s	10s	1s														
4	1	13															
-	3	1	9														
	1	0	4														

1. How did Nisha show that she traded one skinny for ten bits?

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Name _____ Date _____

Solve the following problems. Think of base-ten pieces as you record your trades.

2.

1000s	100s	10s	1s
		3	9
		- 2	4

3.

1000s	100s	10s	1s
		7	3
		- 4	5

4.

1000s	100s	10s	1s
	4	5	2
	- 2	2	9

5.

1000s	100s	10s	1s
	6	7	8
	- 1	9	2

✓ Check-In: Questions 6-7

6.

1000s	100s	10s	1s
	8	4	6
	- 3	8	8

7.

1000s	100s	10s	1s	
	3	3	5	4
	- 1	8	1	6

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Student Activity Book

**Johnny's Paper and Pencil Subtraction
(SAB pp. 227–228)
Questions 1–10**

Name _____ Date _____

Johnny's Paper-and-Pencil Subtraction



1. Johnny solved a problem and recorded his work. Explain why he wrote the 2 above the 3 and the 15 above the 5.

$$\begin{array}{r} \\ 7\cancel{3}^2\cancel{8}^{15} \\ - 178 \\ \hline 7 \end{array}$$

2. Johnny continued the problem. Explain why he wrote 6 above the 7 and 12 above the 2.

$$\begin{array}{r} \\ 6\cancel{7}^2\cancel{8}^{15} \\ - 178 \\ \hline 557 \end{array}$$

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1. Answers will vary. Possible response: The two above the three is 2 tens. Johnny subtracted 1 ten to add to the 5 ones so that he could subtract 8. The 15 above the five shows the ten he added to 5 ones.
2. Answers will vary. Possible response: Johnny could not subtract 70 from the remaining 20, so he traded one hundred from 7 hundreds for tens, which left 6 hundreds.
3. 638 4. 4064
5. 1589 6. 367
7. 4 8. 188
9. Answers will vary. Possible strategy: Count up 4 from 999 to 1003; $1003 - 999 = 4$
10. Answers will vary. Possible strategy: Instead of $489 - 301$, think of $489 - 300 = 189$ and take 1 away, 188.

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Name _____ Date _____

Solve the problems.

3.
$$\begin{array}{r} 687 \\ - 49 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 4327 \\ - 263 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3067 \\ - 1478 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 2056 \\ - 1689 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 1003 \\ - 999 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 489 \\ - 301 \\ \hline \end{array}$$

9. Show a way to solve Question 7 in your head.

10. Show a way to solve Question 8 in your head.

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**Checking with Addition (SAB p. 229)
Questions 1–2**

1. **A.** Correct. $205 + 268 = 473$
B. Incorrect. $1489 - 597 = 892$;
 $892 + 597 = 1489$
C. Incorrect. $3232 - 1581 = 1651$;
 $1651 + 1581 = 3232$
D. Correct. $3222 + 2783 = 6005$
2. **A.** 139;
$$\begin{array}{r} 139 \\ + 204 \\ \hline 300 \\ 30 \\ 13 \\ \hline 343 \end{array}$$
 B. 782;
$$\begin{array}{r} 782 \\ + 597 \\ \hline 1200 \\ 170 \\ 9 \\ \hline 1379 \end{array}$$
- C.** 1451;
$$\begin{array}{r} 2690 \\ + 1451 \\ \hline 3000 \\ 1000 \\ 140 \\ \hline 1 \\ \hline 4141 \end{array}$$
 D. 134;
$$\begin{array}{r} 11 \\ 3873 \\ + 134 \\ \hline 4007 \end{array}$$

Name _____ Date _____

Checking with Addition

1. Johnny solved a few subtraction problems but made some mistakes. Use addition to check his answers. If an answer is wrong, rewrite the problem and solve it correctly. Check with addition.

<p>A.</p> $\begin{array}{r} 473 \\ - 205 \\ \hline 268 \end{array}$	<p>B.</p> $\begin{array}{r} 1489 \\ - 597 \\ \hline 1992 \end{array}$
<p>C.</p> $\begin{array}{r} 3232 \\ - 1581 \\ \hline 2751 \end{array}$	<p>D.</p> $\begin{array}{r} 6005 \\ - 2783 \\ \hline 3222 \end{array}$

2. Solve the following problems. Show how to use addition to check your work.

<p>A.</p> $\begin{array}{r} 343 \\ - 204 \\ \hline \end{array}$	<p>B.</p> $\begin{array}{r} 1379 \\ - 597 \\ \hline \end{array}$
<p>C.</p> $\begin{array}{r} 4141 \\ - 2690 \\ \hline \end{array}$	<p>D.</p> $\begin{array}{r} 4007 \\ - 3873 \\ \hline \end{array}$

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