

Name _____

Number and Operations in Base Ten
3.NBT.2, 3.OA.8

CCSS

MY Homework

Lesson 1

Subtract Mentally

Homework Helper



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Mia wants a guitar that costs \$96. So far, she has saved up \$48. How much more money does she need to save in order to buy the guitar?

Find $\$96 - \48 . Subtract in parts.

1 Break apart 48.

$$\$96 - \$48 \quad (\$48 = \$46 + \$2)$$

2 Subtract one part.

$$\$96 - \$46 = \$50$$

3 Subtract the other part.

$$\$50 - \$2 = \$48$$

So, Mia needs \$48 more.

Practice

Subtract mentally by breaking apart the smaller number.

1. $82 - 47 = \underline{35}$

2. $165 - 26 = \underline{139}$

3. $387 - 308 = \underline{79}$

4. $674 - 426 = \underline{248}$

Make a 10 or 100 to subtract mentally.

5. $76 - 59 = \underline{17}$

6. $120 - 39 = \underline{81}$


7. $554 - 199 = \underline{355}$

8. $453 - 19 = \underline{434}$




Problem Solving

Use any mental math strategy to solve.

- 9. PRACTICE**  **Use Mental Math** The red team has 522 fans in the bleachers. The blue team has 425 fans in the bleachers. How many fewer fans does the blue team have?

97 fewer fans

- 10. PRACTICE**  **Use Number Sense** There are 172 houses in Kyle's neighborhood. He delivers papers to 99 houses. To how many houses does Kyle *not* deliver papers?

73 houses

Vocabulary Check



Draw a line to match the word to its definition or meaning.

- | | |
|----------------|---|
| 11. subtract | • The answer to a subtraction problem. |
| 12. difference | • An operation that tells the difference between two numbers. |

Test Practice

- 13.** Avery has a digital camera with a memory card that can hold 284 pictures. If Avery has taken 159 pictures, how many pictures can the memory card still hold?
- Ⓐ 124 pictures
Ⓑ 125 pictures
Ⓒ 135 pictures
Ⓓ 443 pictures

MY Homework

Lesson 2

Estimate Differences

Homework Helper



Need help? connectED.mcgraw-hill.com

Noah is buying one of two scooters. About how much money would Noah save if he bought the less expensive scooter? Round to the nearest ten and nearest hundred.



One Way Round the nearest hundred.

To the nearest hundred, Noah would save \$200.

$$\begin{array}{r} \$1,463 \longrightarrow \$1,500 \\ - \$1,322 \longrightarrow - \$1,300 \\ \hline \$ 200 \end{array}$$

Another Way Round to the nearest ten.

To the nearest ten, Noah would save \$140.

$$\begin{array}{r} \$1,463 \longrightarrow \$1,460 \\ - \$1,322 \longrightarrow - \$1,320 \\ \hline \$ 140 \end{array}$$

Each estimate is reasonable. There can be more than one reasonable estimate when solving a problem.

Practice

Estimate. Round each number to the indicated place value.

1. $816 - 708$; tens

$$\underline{820} - \underline{710} = \underline{110}$$

2. $466 - 152$; hundreds

$$\underline{500} - \underline{200} = \underline{300}$$

3. $537 - 288$; hundreds

$$\underline{500} - \underline{300} = \underline{200}$$

4. $9,531 - 1,428$; tens

$$\underline{9,530} - \underline{1,430} = \underline{8,100}$$

Estimate. Round each number to the nearest ten and nearest hundred.


	Nearest 10	Nearest 100
5.	$\begin{array}{r} 3,677 \\ - 2,232 \\ \hline \end{array}$	$\begin{array}{r} 3,700 \\ - 2,200 \\ \hline 1,500 \end{array}$
6.	$\begin{array}{r} 573 \\ - 441 \\ \hline \end{array}$	$\begin{array}{r} 600 \\ - 400 \\ \hline 200 \end{array}$
7.	$\begin{array}{r} 1,885 \\ - 483 \\ \hline \end{array}$	$\begin{array}{r} 1,900 \\ - 500 \\ \hline 1,400 \end{array}$



Problem Solving

8. Shannon's scout troop sold 2,357 boxes of cookies. They started with 3,600 boxes. To the nearest hundred, about how many boxes of cookies do they have left to sell?

About 1,200 boxes

9. **PRACTICE**  **Use Number Sense** Clearview Stadium sold 8,371 bags of peanuts last weekend. Capital Stadium sold 4,309 bags of peanuts last weekend. Which stadium sold more bags of peanuts? To the nearest ten, about how many more bags were sold?

Clearview Stadium; about 4,060 more bags

My Work!

Test Practice

10. Which shows the estimated difference for $8,859 - 3,591$ to the nearest hundred?

- (A) 5,000 (C) 5,300
(B) 5,268 (D) 5,400

MY Homework

Lesson 3

Problem Solving: Estimate or Exact Answer

Homework Helper

Need help? connectED.mcgraw-hill.com

What is the difference in the total number of ribbons the girls earned?

Swim Team Ribbons		
Swimmer	Last Year	This Year
Mackenzie	26	31
Zoe	19	33

1 Understand

What facts do you know?

The number of ribbons each girl earned each year.

What do you need to find?

The difference in the total number of ribbons between the girls.

2 Plan

An exact answer is needed. I will add to find the total. Then I will subtract to find the difference.

3 Solve

<u>Mackenzie</u>	<u>Zoe</u>
26	19
+ 31	+ 33
<hr/> 57	<hr/> 52

$$57 - 52 = 5$$

The difference between the total number of ribbons for each girl is 5.

4 Check

Does your answer make sense? Explain.

Yes; Use the inverse operation of addition.

$5 + 52 = 57$ shows the answer is correct.



Problem Solving

Determine whether each problem requires an estimate or an exact answer. Then solve.

1. Gavin saved \$53 in August and \$15 in September. Is it reasonable to say he needs \$50 more to pay for a karate class that costs \$100? Explain.

No; his estimated savings is

$$\underline{\$50 + 20 = \$70; \$100 - \$70 = \$30.}$$

\$30 is not close to \$50.

2. There were 4,569 fans at a soccer game. The visiting team had 1,604 fans cheering. About how many fans cheered for the home team? Explain.

Estimate; Sample answer:

$$\underline{4,600 - 1,600 = 3,000 \text{ fans}}$$

3. **PRACTICE**  **Make Sense of Problems**

Luke buys 2 small pumpkins and 1 large pumpkin. How much does Luke spend?

Pumpkin Sale

Small Pumpkins	\$4
Large Pumpkins	\$7



Exact answer: $\$4 + \$4 + \$7 = \15

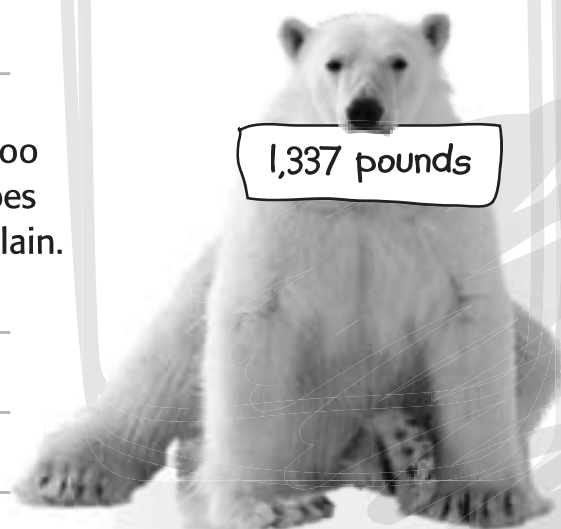
4. Peyton learned that the brown bear at a local zoo weighs 1,578 pounds. About how much more does the brown bear weigh than the polar bear? Explain.

Estimate; Sample answer:

$$\underline{1,600 - 1,300 = 300; \text{The brown bear}}$$

weighs about 300 more pounds.

My Work!



Name _____

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MY Homework

Lesson 4

Hands On: Subtract with Regrouping

Homework Helper



Need help? connectED.mcgraw-hill.com

**Mr. Skylar made 432 birdhouses for the craft fair.
Of those, 315 were sold. How many birdhouses are left?**

Find $432 - 315$.

Estimate $432 - 315 \rightarrow 430 - 320 = 110$

1 Model 432.

hundreds	tens	ones

2 Subtract the ones.

Regroup 1 ten as 10 ones.

$12 \text{ ones} - 5 \text{ ones} = 7 \text{ ones}$

hundreds	tens	ones

3 Subtract the tens and hundreds.

$2 \text{ tens} - 1 \text{ ten} = 1 \text{ ten}$

$4 \text{ hundreds} - 3 \text{ hundreds} = 1 \text{ hundred}$

So, Mr. Skylar has 117 birdhouses left.

Check

Use addition to check subtraction.

$$\begin{array}{r} 432 \\ - 315 \\ \hline 117 \end{array} \quad \begin{array}{r} 117 \\ + 315 \\ \hline 432 \end{array}$$

same

Practice

Use models to subtract. Draw the difference.

1. $552 - 361 = \underline{191}$



2. $636 - 324 = \underline{312}$



Use models to subtract. Draw the difference. Use addition to check.

3. $486 - 318 = \underline{168}$



4. $270 - 131 = \underline{139}$



Problem Solving

Mathematical
PRACTICE



Use Math Tools Use models to subtract.

5. Nola had \$507. She spent \$255 on a new bicycle. How much money does Nola have left?

\$252

6. Evan set out 643 items for a garage sale. He sold 456 items. How many items does Evan have left?

187 items

Vocabulary Check



Choose the correct word(s) to complete each sentence.

inverse operation regroup subtraction sentence

7. Addition is the inverse operation of subtraction.

8. $395 - 278 = 117$ is an example of a subtraction sentence.

9. Sometimes I need to regroup, or use place value to rename a number, in order to subtract.

MY Homework

Lesson 5

Subtract Three-Digit Numbers

Homework Helper



Need help? connectED.mcgraw-hill.com

Chloe jumped rope 631 times without stopping. Addison jumped 444 times. How many more jumps did Chloe make?

Find $631 - 444$.

1 Subtract ones.

$$\begin{array}{r} 211 \\ 631 \\ - 444 \\ \hline 7 \end{array}$$

Regroup 1 ten as 10 ones.

10 ones + 1 one = 11 ones

$$11 \text{ ones} - 4 \text{ ones} = 7 \text{ ones}$$

2 Subtract tens and hundreds.

$$\begin{array}{r} 12 \\ 5211 \\ \cancel{631} \\ - 444 \\ \hline 187 \end{array}$$

Regroup 1 hundred as 10 tens.

$$10 \text{ tens} + 2 \text{ tens} = 12 \text{ tens}$$
$$12 \text{ tens} - 4 \text{ tens} = 8 \text{ tens}$$

5 hundreds $-$ 4 hundreds $=$ 1 hundred

Check

same

$$\begin{array}{r} 631 \\ - 444 \\ \hline 187 \end{array} \quad \begin{array}{r} 187 \\ + 444 \\ \hline 631 \end{array}$$

Addition shows the subtraction answer is correct.

Since, $631 - 444 = 187$, Chloe made 187 more jumps.

Practice

Subtract. Use addition to check your answer.

1.

[illegible]

Check:

	1	1	
\$	1	9	9
+\$	3	1	9
<hr/>			
\$	5	1	8

2.

$$\begin{array}{r} \boxed{3} \boxed{11} \\ 6 \cancel{4} \cancel{1} \\ - 2 2 9 \\ \hline \boxed{4} \boxed{1} \boxed{2} \end{array}$$

Check:

$$\begin{array}{r|l|l} & 1 & \\ 4 & 1 & 2 \\ + 2 & 2 & 9 \\ \hline 6 & 4 & 1 \end{array}$$

Subtract. Use addition to check your answer.

$$\begin{array}{r} 3. \quad \$ \begin{array}{|c|c|c|} \hline 7 & 6 & 4 \\ \hline \end{array} \\ - \$ \begin{array}{|c|c|c|} \hline 3 & 5 & 3 \\ \hline \end{array} \\ \hline \$ \begin{array}{|c|c|c|} \hline 4 & 1 & 1 \\ \hline \end{array} \end{array}$$

Check:

$$\begin{array}{r} \$ \begin{array}{|c|c|c|} \hline 4 & 1 & 1 \\ \hline \end{array} \\ + \$ \begin{array}{|c|c|c|} \hline 3 & 5 & 3 \\ \hline \end{array} \\ \hline \$ \begin{array}{|c|c|c|} \hline 7 & 6 & 4 \\ \hline \end{array} \end{array}$$

4.

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 4 & 13 & 12 \\ \hline \end{array} \\ - \begin{array}{|c|c|c|} \hline 2 & 6 & 5 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 2 & 7 & 7 \\ \hline \end{array} \end{array}$$

Check:

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 1 & 1 & \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 2 & 7 & 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 5 & 4 & 2 \\ \hline \end{array} \end{array}$$

Algebra Subtract to find the unknown.

5. $599 - 284 = \blacksquare$

6. $436 - 377 = \blacksquare$

7. $514 - 175 = \blacksquare$

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 5 & 9 & 9 \\ \hline \end{array} \\ - \begin{array}{|c|c|c|} \hline 2 & 8 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 1 & 5 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 3 & 12 & 16 \\ \hline \end{array} \\ - \begin{array}{|c|c|c|} \hline 3 & 7 & 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline & 5 & 9 \\ \hline \end{array} \end{array}$$


$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 4 & 10 & 14 \\ \hline \end{array} \\ - \begin{array}{|c|c|c|} \hline 1 & 7 & 5 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 3 & 9 \\ \hline \end{array} \end{array}$$

The unknown is 315. The unknown is 59. The unknown is 339.



Problem Solving

Write a number sentence to solve.

- 8. PRACTICE**  **Model Math** Tanisha bought a pack of 225 sheets of paper for her homework. After a week, she had 198 sheets of paper left. How many sheets of paper did she use?

$225 - 198 = 27$; 27 sheets of paper

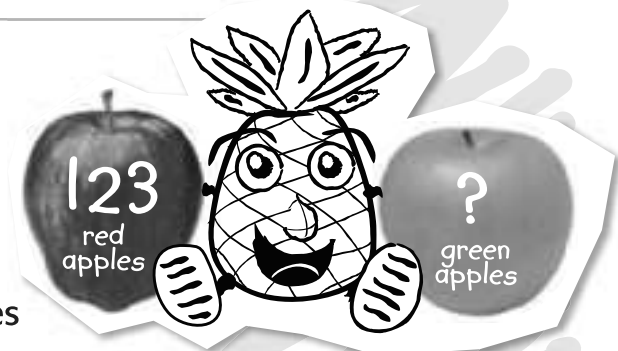
- 9.** The school library would like to raise \$915 for new books. So far, \$475 has been raised. How much more does the library need to raise to reach its goal?

$\$915 - \$475 = \$440$

Test Practice

- 10.** A crate has 272 red and green apples. How many green apples are there?

- Ⓐ 149 green apples Ⓒ 159 green apples
Ⓑ 150 green apples Ⓓ 395 green apples



MY Homework

Lesson 6

Subtract Four-Digit Numbers

Homework Helper



Need help? connectED.mcgraw-hill.com

Find $4,453 - 2,474$.

1 Subtract ones.

Regroup 1 ten as 10 ones.

$$\begin{array}{r}
 4,4\cancel{5}\cancel{3} \\
 -2,474 \\
 \hline
 9
 \end{array}$$

10 ones + 3 ones = 13 ones

2 Subtract tens.

Regroup 1 hundred as 10 tens.

$$\begin{array}{r}
 4,\cancel{4}\cancel{5}\cancel{3} \\
 -2,\cancel{4}74 \\
 \hline
 79
 \end{array}$$

4 tens + 10 tens = 14 tens

3 Subtract hundreds and thousands.

Regroup 1 thousand as 10 hundreds.

$$\begin{array}{r}
 4,\cancel{4}\cancel{5}\cancel{3} \\
 -2,\cancel{4}74 \\
 \hline
 1,979
 \end{array}$$

3 hundreds + 10 hundreds = 13 hundreds

Check

$$\begin{array}{r}
 4,453 \\
 -2,474 \\
 \hline
 1,979
 \end{array}$$

same

$$\begin{array}{r}
 1,979 \\
 +2,474 \\
 \hline
 4,453
 \end{array}$$

Addition shows the answer is correct.

So, $4,453 - 2,474 = 1,979$.

Practice

1. Subtract. Use addition to check your answer.

$$\begin{array}{r}
 \boxed{11} \\
 \boxed{5}\boxed{1}\boxed{11} \\
 \cancel{6}\cancel{2}\cancel{1}7 \\
 - \quad \quad 860 \\
 \hline
 \boxed{5}\boxed{3}\boxed{5}\boxed{7}
 \end{array}$$

Check:

$$\begin{array}{r}
 1 \quad 1 \quad 5 \quad 7 \\
 5, \quad 3 \quad 5 \quad 7 \\
 + \quad 8 \quad 6 \quad 0 \\
 \hline
 6, \quad 2 \quad 1 \quad 7
 \end{array}$$

Subtract. Use addition to check your answer.

$$\begin{array}{r} 5, \overline{) 9 \cancel{6} \cancel{3} 8} \\ - \\ \hline 5, \overline{) 7 } \\ \end{array}$$

Check:

$$\begin{array}{r} 5, \overline{) 7 } \\ + \\ \hline 5, \overline{) 9 } \\ \end{array}$$

$$\begin{array}{r} 4, \overline{) 17 \cancel{7} \cancel{6} } \\ - \\ \hline 4, \overline{) 8 } \\ \end{array}$$

Check:

$$\begin{array}{r} 4, \overline{) 8 } \\ + \\ \hline 4, \overline{) 17 } \\ \end{array}$$

$$\begin{array}{r} 6, \overline{) 11 \cancel{7} \cancel{1} } \\ - \\ \hline 6, \overline{) 5 } \\ \end{array}$$

Check:

$$\begin{array}{r} 6, \overline{) 5 } \\ + \\ \hline 6, \overline{) 11 } \\ \end{array}$$

Algebra Subtract to find the unknown.

5. $\$3,958 - \$1,079 = ?$

6. $\$8,337 - \$483 = ?$

7. $6,451 - 2,378 = ?$

$$\begin{array}{r} \$ 3, \overline{) 9 \cancel{5} \cancel{8} 18} \\ - \$ 1, \overline{) 0 \cancel{7} \cancel{9} 18} \\ \hline \$ 2, \overline{) 8 } \\ \end{array}$$

$$\begin{array}{r} \$ 8, \overline{) 3 \cancel{3} \cancel{7} 13} \\ - \$, \overline{) 4 \cancel{8} \cancel{3} 7} \\ \hline \$ 7, \overline{) 8 } \\ \end{array}$$

$$\begin{array}{r} 6, \overline{) 4 \cancel{5} \cancel{1} 11} \\ - 2, \overline{) 3 \cancel{7} \cancel{8} 11} \\ \hline 4, \overline{) 0 } \\ \end{array}$$

The unknown is \$ 2,879. The unknown is \$ 7,854. The unknown is 4,073.




Problem Solving

Write a number sentence to solve.

8. Pittsburg University won the college football championship in 1937. They won again in 1976. How many years were there between championships?

$1,976 - 1,937 = 39$; 39 years

Mathematical

9. **PRACTICE**  **Model Math** A library has 2,220 books about sports and 1,814 books about animals. How many more sports books are there than animal books?

$2,220 - 1,814 = 406$; 406 more sports books

Test Practice

10. How much less money did Selena's school raise this year at the pancake breakfast?

- (A) \$900 (C) \$1,905
(B) \$905 (D) \$8,145



LAST YEAR
\$4,525



THIS YEAR
\$3,620

Name _____

Number and Operations in Base Ten
3.NBT.2, 3.OA.8

CCSS

MY Homework

Lesson 7

Subtract Across Zeros

Homework Helper



Need help? connectED.mcgraw-hill.com

Makenna won 3,000 tickets playing an arcade game. She used 1,872 tickets to buy a prize. How many tickets does she have left?

$3,000 - 1,872 = \square$ ← Find the unknown.

Estimate $3,000 - 1,900 = 1,100$

1 Regroup 1 thousand, 1 hundred, and 1 ten.

$$\begin{array}{r} 9 \quad 9 \\ 2 \quad \cancel{10} \quad \cancel{10} \quad 10 \\ 3, \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \\ - 1, 8 \quad 7 \quad 2 \\ \hline \end{array}$$

2 Subtract, starting at the place farthest to the right.

$$\begin{array}{r} 9 \quad 9 \\ 2 \quad \cancel{10} \quad \cancel{10} \quad 10 \\ 3, \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \\ - 1, 8 \quad 7 \quad 2 \\ \hline 1, 1 \quad 2 \quad 8 \end{array}$$

Check

$$\begin{array}{r} 1, 1 \quad 2 \quad 8 \\ + 1, 8 \quad 7 \quad 2 \\ \hline 3, 0 \quad 0 \quad 0 \end{array}$$

Addition shows the answer is correct.

1,128 is close to the estimate of 1,100. Estimation shows the answer is reasonable.

Practice

Subtract. Use addition to check.

1.
$$\begin{array}{r} \boxed{4} \quad \boxed{10} \\ \cancel{5} \quad \cancel{0} \quad 7 \\ - \quad \quad 9 \quad 4 \\ \hline \end{array}$$

$$\boxed{4} \quad \boxed{1} \quad \boxed{3}$$

Check:

$$\begin{array}{r} 1 \quad | \quad 1 \quad | \quad 3 \\ 4 \quad | \quad 1 \quad | \quad 3 \\ + \quad | \quad 9 \quad | \quad 4 \\ \hline 5 \quad | \quad 0 \quad | \quad 7 \end{array}$$

2.
$$\begin{array}{r} \boxed{9} \\ \boxed{7} \quad \boxed{10} \quad \boxed{14} \\ \cancel{8} \quad \cancel{0} \quad \cancel{4} \\ - \quad 6 \quad 6 \quad 7 \\ \hline \end{array}$$

$$\boxed{1} \quad \boxed{3} \quad \boxed{7}$$

Check:

$$\begin{array}{r} 1 \quad | \quad 1 \quad | \quad 7 \\ 1 \quad | \quad 3 \quad | \quad 7 \\ + \quad 6 \quad | \quad 6 \quad | \quad 7 \\ \hline 8 \quad | \quad 0 \quad | \quad 4 \end{array}$$

3.
$$\begin{array}{r} \boxed{9} \quad \boxed{9} \\ \boxed{3} \quad \boxed{10} \quad \boxed{10} \quad \boxed{10} \\ \cancel{4} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \\ - \quad \quad 9 \quad 6 \quad 9 \\ \hline \end{array}$$

$$\boxed{3} \quad \boxed{0} \quad \boxed{3} \quad \boxed{1}$$

Check:

$$\begin{array}{r} 1 \quad | \quad 1 \quad | \quad 1 \quad | \quad 1 \\ 3 \quad | \quad 0 \quad | \quad 3 \quad | \quad 1 \\ + \quad | \quad 9 \quad | \quad 6 \quad | \quad 9 \\ \hline 4 \quad | \quad 0 \quad | \quad 0 \quad | \quad 0 \end{array}$$

Subtract. Use addition to check your answer.

4.

6	9	10	
7	10	10	
—	9	4	5
6,	0	6	4

Check:

1	1		
6,	0	6	4
+	9	4	1
7,	0	0	5

5.

3	9	10	
4	10	10	
—	5	3	
2	4	7	

Check:

1	1		
2	4	7	
+	1	5	3
4	0	0	

6.

2	9	9	10
3	10	10	10
—	2	0	2
1,	7	9	8

Check:

1	1	1	
1,	7	9	8
+	1,	2	0
3,	0	0	0

Algebra Subtract to find the unknown.

7. $\$3,008 - \$1,053 = \blacksquare$

8. $8,200 - 875 = \blacksquare$

9. $9,001 - 3,860 = \blacksquare$

2	9	10	
3	10	10	
—	0	5	8
\$ 1,	9	5	5

$\blacksquare = \$1,955$

7	11	9	10
8	12	10	10
—	8	7	5
7,	3	2	5

$\blacksquare = 7,325$

8	9	10	
9	10	10	
—	8	6	1
5,	1	4	1

$\blacksquare = 5,141$



Problem Solving

Mathematical
PRACTICE



Understand Symbols Write a number sentence.

10. A bag holds 5,300 seeds. Brandon plants 790 of the seeds.
How many seeds are left?

4,510 seeds; $5,300 - 790 = 4,510$

11. Amy's book has 500 pages. She has read 245 pages so far.
How many pages does Amy have left to read?

255 more pages; $500 - 245 = 255$

Test Practice

12. How many more points did Jocelyn score?

- Ⓐ 64 points Ⓒ 164 points
Ⓑ 74 points Ⓓ 174 points

