

Name _____

Subtract Whole Numbers**Essential Question** How can you subtract whole numbers?**Number and Operations in Base Ten—4.NBT.B.4** Also 4.NBT.A.3, 4.OA.A.3**MATHEMATICAL PRACTICES**
MP1, MP5, MP8 **Unlock the Problem** 

Mt. Bear and Mt. Bona are two mountains in Alaska. Mt. Bear is 14,831 feet tall and Mt. Bona is 16,421 feet tall. How much taller is Mt. Bona than Mt. Bear?

Estimate. $16,000 - 15,000 =$ _____**Subtract.** $16,421 - 14,831$ 

▲ Mt. Bear and Mt. Bona are in the St. Elias Mountain Range located in the Wrangell-St. Elias National Park and Preserve in Alaska.

STEP 1 Subtract the ones.

Regroup to subtract the tens.

4 hundreds 2 tens =

3 hundreds _____ tens

$$\begin{array}{r} 16,421 \\ -14,831 \\ \hline \end{array}$$

STEP 2 Regroup to subtract the hundreds.

6 thousands 3 hundreds =

5 thousands _____ hundreds

$$\begin{array}{r} 16,421 \\ -14,831 \\ \hline 90 \end{array}$$

STEP 3 Subtract the thousands.

Subtract the ten thousands.

$$\begin{array}{r} 16,421 \\ -14,831 \\ \hline 1,590 \end{array}$$

So, Mt. Bona is _____ feet taller than Mt. Bear. Since _____ is close to the estimate of _____, the answer is reasonable.

Try This! Use addition to check your answer.

$$\begin{array}{r} \cancel{1}^5 \cancel{2}^{12} \\ 10,421 \\ -14,831 \\ \hline 1,590 \end{array}$$

$$\begin{array}{r} 1,1 \\ 1,590 \\ +14,831 \\ \hline \end{array}$$

Math Idea

Inverse operations undo each other. Addition and subtraction are inverse operations, so you can use addition to check a subtraction problem.

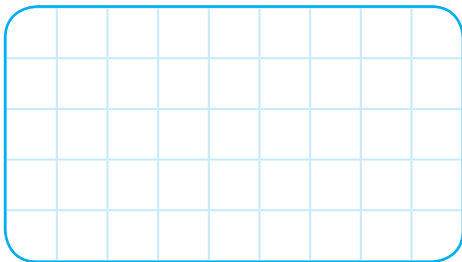
So, the answer checks.

Share and Show



1. Subtract. Use the grid to record the problem.

$$637,350 - 43,832$$



MATHEMATICAL PRACTICES 8

Draw Conclusions How do you know which places to regroup to subtract?

Estimate. Then find the difference.

2. Estimate: _____

$$\begin{array}{r} 14,659 \\ -11,584 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 456,912 \\ -37,800 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 407,001 \\ -184,652 \\ \hline \end{array}$$

On Your Own

Estimate. Then find the difference.

5. Estimate: _____

$$\begin{array}{r} 942,385 \\ -461,803 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 798,300 \\ -348,659 \\ \hline \end{array}$$

7. Estimate: _____

$$\begin{array}{r} 300,980 \\ -159,000 \\ \hline \end{array}$$

Name _____

Practice: Copy and Solve Subtract. Add to check.

8. $653,809 - 256,034$

9. $258,197 - 64,500$

10. $496,004 - 398,450$

11. $500,000 - 145,609$

MATHEMATICAL PRACTICE 2

Reason Abstractly Algebra Find the missing digit.

12.
$$\begin{array}{r} 6,532 \\ -4,1\boxed{5} \\ \hline 2,407 \end{array}$$

13.
$$\begin{array}{r} \boxed{}08,665 \\ -659,420 \\ \hline 149,245 \end{array}$$

14.
$$\begin{array}{r} 697,320 \\ -432,\boxed{}08 \\ \hline 264,712 \end{array}$$

Problem Solving • Applications

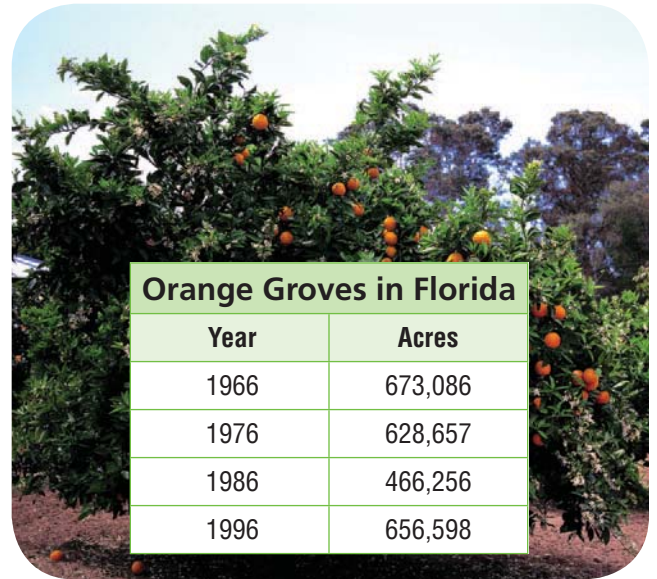


Use the table for 15–16.

15. **MATHEMATICAL PRACTICE 1** **Estimate Reasonableness** How many more acres were grown in 1996 than in 1986? Estimate to check the reasonableness of your answer.

16. What is the difference between the greatest number of acres and the least number of acres used for growing oranges?

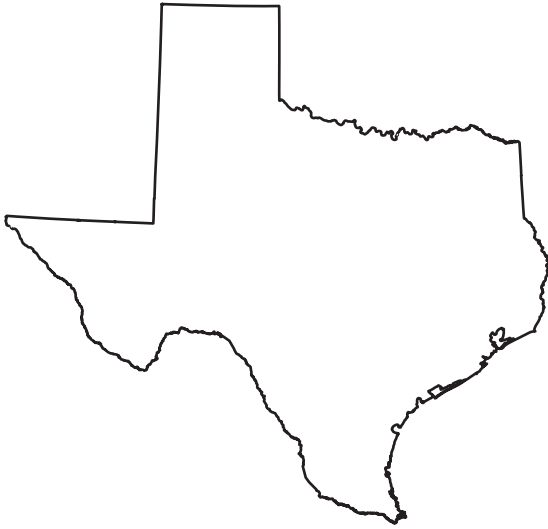
17. **GO DEEPER** Workers at a paper company count the number of boxes of paper in the warehouse each month. In January, there were 106,341 boxes of paper. In February, there were 32,798 fewer boxes than there were in January. In March, there were 25,762 fewer boxes than there were in February. How many boxes were in the warehouse in March?



Year	Acres
1966	673,086
1976	628,657
1986	466,256
1996	656,598

18. **THINK SMARTER** There are 135,663 kilometers of U.S. coastline that border the Pacific Ocean. There are 111,866 kilometers of U.S. coastline that border the Atlantic Ocean. How many more kilometers of U.S. coastline border the Pacific Ocean than the Atlantic Ocean? Solve the problem and show how to check your answer.

19. **THINK SMARTER** **What's the Error?** Maryland has an area of 12,407 square miles. Texas has an area of 268,601 square miles. How much larger is Texas than Maryland?



**Read how Janice solved the problem.
Find her error.**

Texas: 268,601 square miles
Maryland: 12,407 square miles
I can subtract to find the difference.

$$\begin{array}{r} 268,601 \\ - 12,407 \\ \hline 144,531 \end{array}$$

Solve the problem and correct her error.

So, Texas is _____ square miles larger than Maryland.

- MATHEMATICAL PRACTICE 3** **Verify Reasoning of Others** Describe Janice's error.

Name _____

Subtract Whole Numbers



COMMON CORE STANDARD—4.NBT.B.4
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Estimate. Then find the difference.

1. Estimate: 600,000

$$\begin{array}{r}
 \begin{array}{ccccccc}
 & 9 & & & & & \\
 & 7 & 10 & 15 & 6 & 13 & \\
 780,573 & & & & & & \\
 - 229,615 & & & & & & \\
 \hline
 550,958 & & & & & &
 \end{array}
 \end{array}$$

Think: 780,573 rounds to 800,000.
229,615 rounds to 200,000.
So an estimate is $800,000 - 200,000 = 600,000$.

2. Estimate: _____ 3. Estimate: _____ 4. Estimate: _____

$$\begin{array}{r}
 428,731 \\
 - 175,842 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 920,026 \\
 - 535,722 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 253,495 \\
 - 48,617 \\
 \hline
 \end{array}$$

Problem Solving



Use the table for 5 and 6.

5. How many more people attended the Magic's games than attended the Pacers' games?
- _____

6. How many fewer people attended the Pacers' games than attended the Clippers' games?
- _____

Season Attendance for Three NBA Teams	
Team	Attendance
Indiana Pacers	582,295
Orlando Magic	715,901
Los Angeles Clippers	670,063

7. **WRITE** *Math* Have students write a story problem that can be solved by finding the difference of 432,906 and 61,827. Then have them solve the problem.
- _____
- _____
- _____

Lesson Check (4.NBT.B.4)

1. This year, a farm planted 400,000 corn stalks. Last year, the farm planted 275,650 corn stalks. How many more corn stalks did the farm plant this year than last year?

2. One machine can make 138,800 small paper clips in one day. Another machine can make 84,250 large paper clips in one day. How many more small paper clips than large paper clips are made by the two machines in one day?

Spiral Review (4.NBT.A.2, 4.NBT.A.3, 4.NBT.B.4)

3. In three baseball games over a weekend, 125,429 people came to watch. The next weekend, 86,353 people came to watch the games. How many people total watched the six baseball games?

4. Kevin read the number “two hundred seven thousand, forty-eight” in a book. What is this number in standard form?

5. A museum had 275,608 visitors last year. What is this number rounded to the nearest thousand?

6. At the Millville Theater, a play ran for several weeks. In all, 28,175 people saw the play. What is the value of the digit 8 in 28,175?
