

Homework & Practice 2-5

Subtract Across Zeros

Another Look!

Find $700,402 - 297,354$.

Estimate: $700,000 - 300,000 = 400,000$

Step 1

$$\begin{array}{r} 700,402 \\ - 297,354 \\ \hline \end{array}$$

You cannot subtract 4 ones from 2 ones, so you must regroup. Since there is a zero in the tens place, you must regroup 4 hundreds as 3 hundreds, 9 tens, and 10 ones.

$$\begin{array}{r} ^9 \\ ^{310}12 \\ 700,402 \\ - 297,354 \\ \hline \end{array}$$

Step 2

$$\begin{array}{r} ^9 ^9 \\ ^{610}10 ^{310}12 \\ 700,402 \\ - 297,354 \\ \hline \end{array}$$

Since there are zeros in the thousands and ten thousands places, you can regroup 700 thousands as 6 hundred thousand 9 ten thousands, and 10 thousands.

Step 3

$$\begin{array}{r} ^9 ^9 \\ ^{610}10 ^{310}12 \\ 700,402 \\ - 297,354 \\ \hline 403,048 \end{array}$$

Now you can subtract.

Step 4

$$\begin{array}{r} ^{11} ^{11} \\ 297,354 \\ + 403,048 \\ \hline 700,402 \end{array}$$

You can check your answer by using addition.

You can use these steps to subtract across zeros.



For **1–12**, subtract.

1. $\begin{array}{r} 61,070 \\ - 4,981 \\ \hline \end{array}$

2. $\begin{array}{r} 5,707 \\ - 2,058 \\ \hline \end{array}$

3. $\begin{array}{r} 815,950 \\ - 423,147 \\ \hline \end{array}$

4. $\begin{array}{r} 90,800 \\ - 37,638 \\ \hline \end{array}$

5. $\begin{array}{r} 102,604 \\ - 6,174 \\ \hline \end{array}$

6. $\begin{array}{r} 22,700 \\ - 20,487 \\ \hline \end{array}$

7. $\begin{array}{r} 40,200 \\ - 29,526 \\ \hline \end{array}$

8. $\begin{array}{r} 600,470 \\ - 307,299 \\ \hline \end{array}$

9. $8,106 - 2,999$

10. $214,507 - 83,569$

11. $10,400 - 6,392$

12. $45,500 - 9,450$

13. **Number Sense** Este subtracts 9,405 from 11,038. Should Este's answer be greater or less than 2,000? Explain.

14. A park district holds a fundraiser over 4 weekends in which teams swim laps for donations. The park district's goal is 40,000 laps. Over three weekends the teams swam 8,597 laps, 11,065 laps, and 9,211 laps. How many laps do they need to swim the fourth weekend to reach their goal?

15. **MP.2 Reasoning** Fill in the missing numbers:
 $106,984 - 37,639 = \underline{\hspace{2cm}}$, and
 $69,345 + \underline{\hspace{2cm}} = 106,984$.
Explain why you use addition to check subtraction.

16. **MP.3 Construct Arguments** Blaine subtracted 342,139 from 601,800. Is Blaine's answer correct? If not, explain why and write the correct answer.

$$\begin{array}{r} 601,800 \\ - 342,139 \\ \hline 359,661 \end{array}$$

17. **MP.5 Use Appropriate Tools** There are 332,054 people in a city. Of these, 168,278 are under the age of eighteen. Draw a bar diagram and find how many people are eighteen or older.

18. **Higher Order Thinking** To most closely estimate the difference below, would you round the numbers to the nearest ten thousand, the nearest thousand, or the nearest hundred? Explain.

$$\begin{array}{r} 62,980 \\ - 49,625 \\ \hline \end{array}$$

Common Core Assessment

19. Sahira's company printed 37,652 books of the 70,000 that were ordered. How many more books does Sahira's company need to print? Write the missing numbers to complete the problem.

$$\begin{array}{r} 7 \square, 000 \\ - \square 7,6 \square 2 \\ \hline \square \square, \square \square \square \end{array}$$