

Name _____

Add Whole Numbers

Essential Question How can you add whole numbers?



Number and Operations in Base Ten—4.NBT.B.4 Also 4.OA.A.3, 4.NBT.A.3

MATHEMATICAL PRACTICES
MP1, MP5, MP8

Unlock the Problem

Alaska is the largest state in the United States by area. Its land area is 570,374 square miles and its water surface area is 86,051 square miles. Find the total area of Alaska.

- Underline what you are asked to find.
- Circle the information you will use.

Find the sum.

Add. $570,374 + 86,051$

Think: It is important to line up the addends by place value when adding two numbers.

STEP 1 Add the ones.
Add the tens. Regroup.
12 tens = 1 hundred _____ tens

$$\begin{array}{r} 570,374 \\ + 86,051 \\ \hline \end{array}$$

STEP 2 Add the hundreds.
Add the thousands.

$$\begin{array}{r} 570,374 \\ + 86,051 \\ \hline 25 \end{array}$$

STEP 3 Add the ten thousands.
Regroup.
15 ten thousands =
1 hundred thousand _____ ten thousands

$$\begin{array}{r} 570,374 \\ + 86,051 \\ \hline 6,425 \end{array}$$

STEP 4 Add the hundred thousands.

$$\begin{array}{r} 570,374 \\ + 86,051 \\ \hline 56,425 \end{array}$$

So, the total area of Alaska is _____ square miles.



▲ The area of Alaska is outlined in the photo above.



MATHEMATICAL PRACTICES 8

Draw Conclusions How do you know when to regroup when adding?

Estimate You can estimate to tell whether an answer is reasonable.
To estimate a sum, round each addend before you add.

 **Example** Estimate. Then find the sum.

Juneau has an area of 2,717 square miles. Valdez has an area of 222 square miles. What is their combined area?

A Estimate. Use the grid to help you align the addends by place value.

2, 7 1 7 →	3, 0 0 0	
2 2 2 →	+	

Round to the nearest thousand.

Round to the nearest hundred.

So, the combined area of Juneau and Valdez is about _____ square miles.

B Find the sum.

2, 7 1 7	
+	

Think: Begin by adding the ones.



ERROR Alert

Remember to align the addends by place value.

So, the combined area of Juneau and Valdez is _____ square miles.

- Is the sum reasonable? Explain.

Share and Show



1. Use the grid to find $738,901 + 162,389$.



Use the grid to align the addends by place value.

Name _____

Estimate. Then find the sum.

2. Estimate: _____

$$\begin{array}{r} 72,931 \\ + 18,563 \\ \hline \end{array}$$

 3. Estimate: _____

$$\begin{array}{r} 432,068 \\ + 239,576 \\ \hline \end{array}$$

 4. Estimate: _____

$$\begin{array}{r} 64,505 \\ + 38,972 \\ \hline \end{array}$$

On Your Own

Estimate. Then find the sum.

5. Estimate: _____


$$\begin{array}{r} 839,136 \\ + 120,193 \\ \hline \end{array}$$

6. Estimate: _____


$$\begin{array}{r} 186,231 \\ + 88,941 \\ \hline \end{array}$$

7. Estimate: _____

$$\begin{array}{r} 744,201 \\ + 168,900 \\ \hline \end{array}$$

8.  For the first football game of the season, 62,732 fans attended. The number of fans at the second game was 469 more than at the first game. What is the total number of fans that attended the first two games?
- _____

9.  Daisy's Flower Shop sold 135,649 flowers during its first year. The second year, the shop sold 9,754 more flowers than it did its first year. The third year, it sold 1,343 more flowers than it did in the second year. How many flowers did the shop sell during the three years?
- _____

 **Reason Abstractly Algebra** Find the missing number and name the property you used to find it. Write *Commutative* or *Associative*.

10. $(4,580 + 5,008) + 2,351 = 4,580 + (\text{ } + 2,351)$

11. $7,801 + \text{ } = 4,890 + 7,801$ _____

12. $2,592 + 3,385 = 3,385 + \text{ }$ _____

Math Talk

MATHEMATICAL PRACTICES 6

Explain how estimating helps you know if your answer is reasonable.

Remember

Commutative Property

$$4 + 5 = 5 + 4$$

Associative Property

$$4 + (7 + 3) = (4 + 7) + 3$$

Problem Solving • Applications



Use the table for 13–14.

13. **THINK SMARTER** What is the combined population of the three major Alaskan cities? Estimate to verify your answer.



14. **MATHEMATICAL PRACTICE 6** The digit 5 occurs two times in the population of Fairbanks. What is the value of each 5? **Explain** your answer.

15. **GO DEEPER** Kaylie has 164 stamps in her collection. Her friend Nellie has 229 more stamps than Kaylie. How many stamps do Kaylie and Nellie have?

16. **THINK SMARTER** Alaska's Glacier Bay National Park had 431,986 visitors one year. The next year, the park had 22,351 more visitors than the year before. How many people visited during the two years? Show your work and explain how you found your answer.



Major Cities of Alaska

City	Population*
Anchorage	286,174
Fairbanks	35,252
Juneau	30,796

*2009 U.S. Census Bureau estimates

WRITE *Math* • Show Your Work

Name _____

Add 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 sum.

1. Estimate: 90,000

$$\begin{array}{r} 11 \\ 63,824 \rightarrow 60,000 \\ + 29,452 \rightarrow + 30,000 \\ \hline 93,276 \quad 90,000 \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 73,404 \\ + 27,865 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 403,446 \\ + 396,755 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 137,638 \\ + 52,091 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 200,629 \\ + 28,542 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 212,514 \\ + 396,705 \\ \hline \end{array}$$

Problem Solving



Use the table for 7–9.

7. Beth and Cade were on one team.
What was their total score?

8. Dillan and Elaine were on the other team.
What was their total score?

9. Which team scored the most points?

10. **WRITE** *Math* Have students write a story problem that can be solved by finding the sum of 506,211 and 424,809. Have them solve the problem.

Individual Game Scores	
Student	Score
Beth	251,567
Cade	155,935
Dillan	188,983
Elaine	220,945

Lesson Check (4.NBT.B.4)

1. The coastline of the United States is 12,383 miles long. Canada's coastline is 113,211 miles longer than the coastline of the United States. How long is the coastline of Canada?

2. Germany is the seventh largest European country and is slightly smaller by area than Montana. Germany has a land area of 134,835 square miles and a water area of 3,011 square miles. What is the total area of Germany?

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

3. In an election, about 500,000 people voted in all. What could be the exact number of people who voted in the election?

4. In 2007, Pennsylvania had approximately 121,580 miles of public roads. What is 121,580 rounded to the nearest thousand?

5. Order these numbers from least to greatest: 749,340; 740,999; 740,256

6. Which symbol makes the following statement true?
$$\$413,115 \bigcirc \$431,511$$

