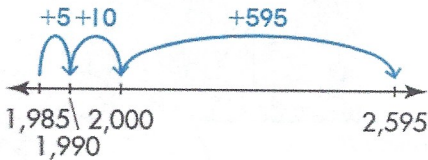


Another Example!

Subtract $2,595 - 1,985$ with mental math.

Count Up

Count from 1,985 up to 2,595.

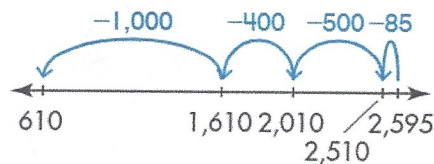


Find how much you counted up.

$$5 + 10 + 595 = 610$$

Count Down

Count down 1,985 from 2,595.



Use Compensation

Adding the same amount to both numbers in a subtraction problem doesn't change the difference.

$$\begin{aligned} (2,595 + 15) - (1,985 + 15) \\ = 2,610 - 2,000 \\ = 610 \end{aligned}$$

★ Guided Practice

Do You Understand?

1. Explain how to find $2,987 + 4,278$ with mental math. What property does your strategy use?

Do You Know How?

For 2–4, use mental math strategies to solve.

2. $6,794 - 999$
3. $4,505 + 3,515$
4. $9,100 + 2,130 + 900$

★ Independent Practice ★

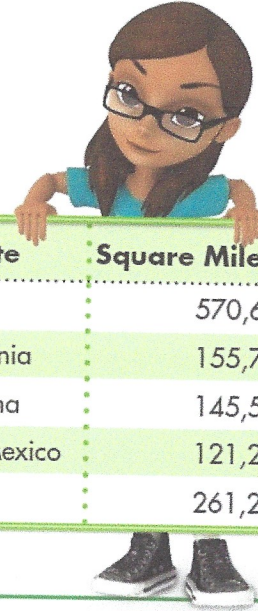
For 5–10, use mental math to solve.

5. $7,000 - 827$
6. $1,225 + 975$
7. $5,491 - 2,860$
8. $6,686 - 1,443$
9. $8,375 + 31,145$
10. $23,100 + 74,900$

Problem Solving

For 11–12, use the table at the right.

11. **Precision** How much greater is the area of California than Montana? Explain how to use mental math to solve.



State	Square Miles of Land
Alaska	570,641
California	155,779
Montana	145,546
New Mexico	121,298
Texas	261,232

12. Round the land area of the state with the least number of square miles to the nearest ten thousand.

13. The town of Worman Grove has collected 28,481 pens for a school supplies drive. Their goal is 30,000 pens. Show how to use counting on to find how many more pens they need to reach their goal.

14. Conservationists weigh two Northern elephant seals. An adult seal weighs 6,600 pounds, and its pup weighs 3,847 pounds. What is their combined weight? Explain how to use mental math to solve.

15. **Higher Order Thinking** Is Kelly's answer correct? What mistake did she make?

Kelly's Work

$$\begin{aligned} &5,356 + 2,398 \\ &= (5,356 + 2) + (2,398 + 2) \\ &5,358 + 2,400 = 7,758 \end{aligned}$$

Assessment Practice

16. Use mental math to find $1,218 + 1,598$.

- (A) 2,716
- (B) 2,720
- (C) 2,816
- (D) 2,820

17. Use mental math to find $5,280 - 1,997$.

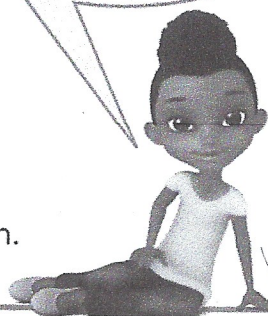
- (A) 3,177
- (B) 3,180
- (C) 3,277
- (D) 3,283

How Can You Use Mental Math to Solve Problems?

A

Katy's dad washes windows at one of the tallest buildings in Miami, the Four Seasons Hotel. He worked Saturdays in October and earned more money than in September. How much did he earn in the two months combined?

You can use strategies based on properties to add numbers mentally.



Washing Windows
Earned \$1,985 in Sept.
Earned \$2,595 in Oct.

Find $\$1,985 + \$2,595$ with mental math.

B Make Ten

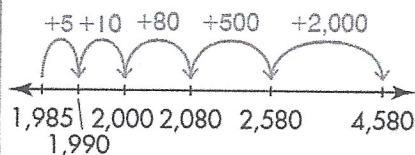
Break apart 1,985 to get a number that makes a ten, hundred, or thousand when added to 2,595. Then, use the **Associative Property of Addition** to change the grouping.

$$\begin{aligned} 1,985 + 2,595 \\ &= (1,580 + 405) + 2,595 \\ &= 1,580 + (405 + 2,595) \\ &= 1,580 + 3,000 \\ &= 4,580 \end{aligned}$$

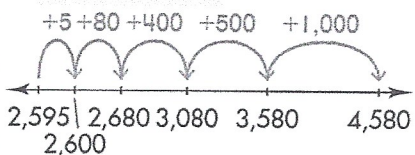
Katy's dad earned \$4,580.

C Add On

Break one addend apart and add on.



You can start with either addend because of the **Commutative Property of Addition**.



Katy's dad earned \$4,580.

D Use Compensation

Add 15 to 1,985. Then subtract 15 from 2,595 to compensate. Adding 15 and subtracting 15 is the same as adding zero. Adding zero doesn't change the sum because of the **Identity Property of Addition**.

$$\begin{aligned} 1,985 + 2,595 \\ &= (1,985 + 15) + (2,595 - 15) \\ &= 2,000 + 2,580 \\ &= 4,580 \end{aligned}$$

Katy's dad earned \$4,580.

Convince Me! Use Structure How could you make ten by breaking apart 2,595?