

# Homework & Practice 2-1

## Mental Math: Find Sums and Differences

### Another Look!



There are different strategies for adding and subtracting with mental math.

#### Addition Strategies

Find  $3,728 + 2,420$ .

#### One Way

Break up the addends by place value.

$$3,000 + 2,000 = 5,000 \quad 5,000$$

$$700 + 400 = 1,100 \quad 1,100$$

$$20 + 20 = 40 \quad 40$$

$$8 + 0 = 8 \quad \begin{array}{r} + \\ 8 \\ \hline 6,148 \end{array}$$

#### Another Way

Use compensation to find  $3,428 + 2,420$ .

$2,400$  is easier to add than  $2,420$ .

$$3,728 + 2,400 = 6,128.$$

Add 20 to the answer because 20 was subtracted earlier.

$$6,128 + 20 = 6,148$$

#### Subtraction Strategies

Find  $40,000 - 7,985$ .

#### One Way

Use compensation.

$8,000$  is easier to subtract than  $7,985$ .

$$40,000 - 8,000 = 32,000$$

Since you subtracted 15 too many, add 15 to your answer.

$$32,000 + 15 = 32,015$$

#### Another Way

Use counting on to find  $40,000 - 7,985$ .

$$7,985 + 15 = 8,000$$

$$8,000 + 2,000 = 10,000$$

$$10,000 + 30,000 = 40,000$$

Add the parts.

$$30,000 + 2,000 + 15 = 32,015$$

For 1–10, use mental math to solve.

1.  $4,576 + 2,842$

3.  $218,389 + 40,510$

5.  $46,524 + (37,824 + 2,176)$

7.  $(86,765 + 36,235) + 24,215$

9.  $8,452 + (917 + 0)$

2.  $56,211 - 6,189$

4.  $72,000 - 41,426$

6.  $658,843 - 7,635$

8.  $9,378 - 2,536$

10.  $12,211 + 11,298$

You can choose the mental math strategy you think will work best.



11. **Math and Science** Write and solve a number sentence to find the difference between the speeds of the planets Venus and Saturn. Then write the difference using number names.

Speeds of Planets	
Planet	Speed (Miles per hour)
Neptune	12,253
Saturn	21,637
Mars	53,979
Venus	78,341

12. **MP.6 Be Precise** Use a mental math strategy to find  $4,290 + 3,602$ . Explain how to check your answer using a different strategy.

13. Janelle needs to score 280,000 points on her computer game to get to the next level. So far, she has scored 96,675 points. How many more points does Janelle need to score to reach the next level? Use mental math strategies to find the answer.

14. **A-Z Vocabulary** June is working on an addition problem and starts with 17,985. After she adds, she still has 17,985. Which property of addition did June use? How do you know?

15. **Higher Order Thinking** Explain how you can use mental math to perform the following addition:

$$61,438 + 54,579 + 28,562$$

## Common Core Assessment

16. Guy wants to add 7,145 and 8,265 and using mental math strategies. What steps could Guy take to add the numbers? Is Guy's answer correct? Explain.

Guy's Work
$7,145 + 8,265 = 15,410$