

**STUDY LINK**  
**2·10**

# Place-Value Puzzles



Millions			Thousands			Ones		
Hundred-millions	Ten-millions	Millions	Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Ones

Use the clues to solve the puzzles.

## Puzzle 1

- ◆ The value of the digit in the **thousandths** place is equal to the sum of the measures of the angles in a triangle ( $180^\circ$ ) divided by 30.
- ◆ If you multiply the digit in the **tens** place by 1,000; the answer will be 9,000.
- ◆ Double 35. Divide the result by 10. Write the answer in the **tenths** place.
- ◆ The **hundreds**-place digit is  $\frac{1}{2}$  the value of the digit in the thousandths place.
- ◆ When you multiply the digit in the **ones** place by itself, the answer is 0.
- ◆ Write a digit in the **hundredths** place so that the sum of all six digits in this number is 30.

What is the number? \_\_\_\_\_

## Puzzle 2

- ◆ Double 12. Divide the result by 8. Write the answer in the **thousands** place.
- ◆ If you multiply the digit in the **hundredths** place by 10, your answer will be 40.
- ◆ The **tens**-place digit is a prime number. If you multiply it by itself, the answer is 49.
- ◆ Multiply 7 and 3. Subtract 12. Write the answer in the **thousandths** place.
- ◆ Multiply the digit in the hundredths place by the digit in the thousands place. Subtract 7 from the result. Write the digit in the **tenths** place.
- ◆ The digit in the **ones** place is an odd digit that has not been used yet.
- ◆ The value of the digit in the **hundreds** place is the same as the number of sides of a quadrilateral.

What is the number? \_\_\_\_\_

**Check:** The sum of the answers to both puzzles is 3,862.305.

### Practice

3.  $7,772 + 1,568 =$  \_\_\_\_\_      4.  $472 - 228 =$  \_\_\_\_\_

5.  $826 * 54 =$  \_\_\_\_\_      6.  $59 / 3 \rightarrow$  \_\_\_\_\_