

# The Ten-Thousand Tower

Complete answer key and teaching notes

## Academic focus

Read, build, compare, order, and round whole numbers to 10,000. Student mastery target: 90% accuracy.

Use this key after the learner completes the adventure. Accept equivalent explanations that use correct place-value reasoning.

## Scoring

Score the 19 numbered activities. Item 16 is open-ended and is correct when the number is from 6,501 through 6,599. A score of 18 or 19 demonstrates the stated 90% mastery target.

## Worked-example checks

6,482: the 4 is in the hundreds place, so its value is 400. Expanded form is  $6,000 + 400 + 80 + 2$ .

4,918 compared with 4,891: thousands tie; 9 hundreds is greater than 8 hundreds, so  $4,918 > 4,891$ .

8,647 rounded to the nearest hundred: the tens digit is 4, so keep 6 hundreds and change tens and ones to zero: 8,600.

## ANSWER KEY | ITEMS 1-10

1 400 - The 4 is in the hundreds place.

2  $7,000 + 300 + 5$  - The tens digit is zero, so no tens addend is needed.

3 four thousand seventy-two - Accept standard spelling and optional hyphenation of seventy-two.

4 5,806 - 5 thousands + 8 hundreds + 0 tens + 6 ones.

5  $2,647 - 2,000 + 600 + 40 + 7$ .

6  $>$  - 4,918 is greater than 4,891.

7 3,842 - All have 3 thousands; compare hundreds next.

8 6,109; 6,190; 6,901 - Compare hundreds, then tens.

9 7,900 - Thousands tie; 9 hundreds is greater than 0 hundreds.

10 8,600 - Nearest hundred.

## ANSWER KEY | ITEMS 11-19

11 3,450 - Nearest ten.

12 8,000 - Nearest thousand; 7,550 rounds up.

13 4,000 - 4,398 is 398 from 4,000 and 602 from 5,000.

14 9,000 - The 9 is in the thousands place.

15 5,806 - Same build task as item 4; the zero keeps the tens place.

16 Answers vary - Any whole number from 6,501 through 6,599.

17 8,342;  $8,000 + 300 + 40 + 2$  - Standard and expanded forms.

18  $8,342 > 8,324$  - Thousands and hundreds tie; 4 tens is greater than 2 tens.

19 8,300 - Nearest hundred; the tens digit is 4.

**Final explanation: 8,342 is closer to 8,300 because it is 42 away from 8,300 and 58 away from 8,400.**