

# Learn About

## Using Estimation: Rounding Numbers

An **estimate** is a number that is close to the actual number you are looking for. Numbers can be rounded to the nearest ten, hundred, thousand, ten thousand, and so forth. If the digit one place to the right of the place being rounded to is 5 or greater, round up. If the digit one place to the right of the place being rounded to is 4 or less, round down.

Look at the chart, and then read the reason why each number is rounded to the nearest thousand or ten thousand shown.

Number	Round to the Nearest	Rounded Number
27,654	thousand	28,000
432,156	ten thousand	430,000

- The number 27,654 rounded to the nearest thousand is 28,000 because the hundreds place contains the digit 6, which is 5 or greater.
- The number 432,156 rounded to the nearest ten thousand is 430,000 because the thousands place contains the digit 2, which is less than 5.

You can also round decimals. Decimals are often rounded to the nearest whole number. For example, the number 245.57 rounds up to 246 because the digit in the tenths place is 5 or greater.

Carolyn's aunt and uncle recently bought a new house. The house cost \$237,450. What is this figure rounded to the nearest ten thousand?

The digit 7 is in the thousands place in the number 237,450.  
The rounded figure is **240,000**.



Numbers can be rounded to the nearest ten, hundred, thousand, ten thousand and so forth. Decimals can be rounded to the nearest whole number. If the digit one place to the right of the place being rounded to is 5 or greater, round up. If the digit one place to the right of the place being rounded to is 4 or less, round down.

*Look at the answer choices for each question.  
Read why each answer choice is correct or  
not correct.*

**1. What is \$27,670 rounded to the nearest ten thousand?**

**Ⓐ \$20,000**

This answer is not correct. The digit one place to the right of the ten thousands place is 5 or greater. Therefore, \$27,670 rounds up to \$30,000 and not down to \$20,000.

**Ⓑ \$27,000**

This answer is not correct. The digit one place to the right of the ten thousands place is 5 or greater. Therefore, \$27,670 rounds up to \$30,000.

**Ⓒ \$28,000**

This answer is not correct. The problem asks you to round to the nearest ten thousand, not to the nearest thousand.

**● \$30,000**

This answer is correct. The digit one place to the right of the ten thousands place is 5 or greater. Therefore, \$27,670 rounds up to \$30,000.

**2. Round the price of each car to the nearest thousand. About how much would it cost to buy a Fanfare and an Alpine?**

**Ⓐ about \$45,000**

This answer is not correct. The price of a Fanfare rounds down to \$18,000, and the price of an Alpine rounds up to \$28,000.  
 $\$18,000 + \$28,000 = \$46,000$ , not \$45,000.

**● about \$46,000**

This answer is correct. The price of a Fanfare rounds down to \$18,000, and the price of an Alpine rounds up to \$28,000.  
 $\$18,000 + \$28,000 = \$46,000$ .

**Ⓒ about \$47,000**

This answer is not correct. The price of a Fanfare rounds down to \$18,000, and the price of an Alpine rounds up to \$28,000.  
 $\$18,000 + \$28,000 = \$46,000$ , not \$47,000.

**Ⓓ about \$50,000**

This answer is not correct. The price of a Fanfare rounds down to \$18,000, and the price of an Alpine rounds up to \$28,000.  
 $\$18,000 + \$28,000 = \$46,000$ , not \$50,000.

# Lesson 10

*Read the passage.  
Then do Numbers 1–5.*

## Uluru



The Johnson family took a trip to the Northern Territory during the summer holidays. They visited Uluru. Uluru is a massive sandstone rock in the centre of Australia. It is unusual in that it appears to change colour during the day, as different light strikes it at different times.

1. The circumference, or distance around the base, of Uluru is 9334.19 metres. Joseph rounded this figure to the nearest whole number of metres. What was his rounded figure?

- Ⓐ 9334 metres
- Ⓑ 9335 metres
- Ⓒ 9330 metres
- Ⓓ 9300 metres

2. Use the information from number 1. Joseph rounded the number of metres around the base of Uluru to the nearest hundred metres. What was his rounded figure?

- Ⓐ 9000 metres
- Ⓑ 9334 metres
- Ⓒ 9330 metres
- Ⓓ 9300 metres

# Lesson 17

Read the passage.  
Then do Numbers 1–5.

## The Amusement Park

Ben and his friends like to go to the amusement park during the summer. They like to ride the roller coasters. They also like to get wet on the water rides when it's hot. There are many rides to ride, shows to see and games to play. Ben and his friends never get tired of going to the amusement park!



1. During the summer, about 1,300,000 people rode the roller coaster. Which of the following numbers, when rounded to the nearest hundred thousand, is 1,300,000?

- Ⓐ 1,434,395
- Ⓑ 1,352,348
- Ⓒ 1,327,924
- Ⓓ 1,246,349

2. About 947,800 people rode the water rides, and about 451,300 people saw the shows this summer. Round both figures to the nearest ten thousand. About how many people rode the water rides or saw the shows?

- Ⓐ about 1,380,000 people
- Ⓑ about 1,390,000 people
- Ⓒ about 1,400,000 people
- Ⓓ about 1,500,000 people

# Self-Assessment 2

Lessons 6–10

*Answer these questions after you have completed Lessons 6–10. Before you begin, re-read what you wrote in Self-Assessment 1.*

## **FOCUS on Using Estimation, Book E**

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Rate your work in Lessons 6–10. Circle your answer.

successful

somewhat successful

needs improvement

2. Did any of the questions give you trouble? \_\_\_\_\_

If so, what kind of trouble did you have?

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Is this the same kind of trouble you had in Lessons 1–5? \_\_\_\_\_

3. Did you find the questions easier or more difficult than those in Lessons 1–5?

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Why do you think this is so?

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4. Did you meet the goal you set for yourself for Lessons 6–10? \_\_\_\_\_

Why or why not?

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5. What is your goal for Lessons 11–15?

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Cut along the dotted line.