

## 1 Getting Started

## Objective

- To round numbers up to the nearest million

## Materials

number cards 20 through 30;  
newspaper grocery ads

## Warm Up • Mental Math

Have students name the year that came first.

- 1776 or 1976 (1776)
- 1986 or 1968 (1968)
- 1072 or 865 (865)
- 1615 or 1516 (1516)
- 1326 or 1218 (1218)
- 1812 or 1912 (1812)
- 1971 or 1969 (1969)
- 1421 or 1399 (1399)

## Warm Up • Numeration

Write  $26 + 48 + 137$  vertically on the board. Have a student find the sum. (211) Have another student write the problem and the sum as money amounts. ( $\$0.26 + \$0.48 + \$1.37 = \$2.11$ ) Repeat for more problems.

## 2 Teach

**Introduce the Lesson** Have a student read the problem and tell what is to be done. (estimate how many people live in Kentucky and Indiana) Ask students to use the chart to tell what facts are given and then fill in the information sentences. (The population of Kentucky is 4,041,769; the population of Indiana is 6,080,485.)

- Work through the rounding process in the model with students. Then, have them complete the solution sentences.

**Develop Skills and Concepts** Tell students that we often need to know a sum quickly but do not need to know the exact amount. We can then **round** the numbers to get an **estimate**. Tell students that an example might be if you had \$2 and wanted to quickly know if you could afford to buy three items costing 79¢, 59¢, and 83¢. Help students name other times when rounding numbers

## Rounding Numbers

About how many people live in Kentucky and Indiana?

State	Population	Year
Kentucky	4,041,769	2000
Indiana	6,080,485	2000

We want to know about how many people live in Kentucky and in Indiana.

We know the population of Kentucky is 4,041,769  
and the population of Indiana is 6,080,485.

We can round these populations to millions, hundred thousands, ten thousands, and thousands.

To round a number to a particular place value, locate the digit to be rounded. If the digit to the right is 0, 1, 2, 3, or 4, the digit we are rounding stays the same. If the digit to the right is 5, 6, 7, 8, or 9, the digit we are rounding is raised one.

	Population	Rounded to Millions	Rounded to Hundred Thousands	Rounded to Ten Thousands	Rounded to Thousands
Kentucky	4,041,769	4,000,000	4,000,000	4,040,000	4,042,000
Indiana	6,080,485	6,000,000	6,100,000	6,080,000	6,080,000

The number of people living in Kentucky rounded to the nearest

- million is 4,000,000
- hundred thousand is 4,000,000
- ten thousand is 4,040,000
- thousand is 4,042,000

The number of people living in Indiana rounded to the nearest

- million is 6,000,000
- hundred thousand is 6,100,000
- ten thousand is 6,080,000
- thousand is 6,080,000

## Getting Started

Round each number to the nearest million.

- 8,275,259 8,000,000
- 6,524,920 7,000,000
- \$3,752,496 \$4,000,000

Round each number to the nearest hundred thousand

- 8,275,259 8,300,000
- 56,524,920 56,500,000
- 3,752,496 3,800,000

could be helpful. (referring to the speed traveled, pages in a book, and so on)

- Draw a number line from 1,000 to 2,000 on the board. Write 1,600 on the board. Ask students if 1,600 is closer to 1,000 or to 2,000. (2,000) Show students that 1,600 is rounded to 2,000 rather than to 1,000 because it is closer to 2,000. Tell students that we always round a number that is exactly in the middle up, so 1,500 is rounded to 2,000. Repeat the procedure for rounding 162,000 to the nearest hundred thousand.
- Now, draw a number line from 100,000 to 200,000 and show students how 162,000 is rounded to the nearest hundred thousand. Give more examples of rounding 5- and 6-digit numbers.

## 3 Practice

Have students complete the exercises on page 32.