$$\frac{\$4.05}{150 \text{ index cards}} = \frac{\$4.05 \div 150}{150 \text{ index cards} \div 150}$$
$$\approx \frac{\$0.03}{1 \text{ index card}} \quad \text{Round to the nearest hundredth,}$$

or approximately \$0.03 per index card.

For the second option, we have

$$\frac{\$117}{30 \text{ index cards}} = \frac{\$1.17 \div 30}{30 \text{ index cards} \div 30}$$
$$\approx \frac{\$0.04}{1 \text{ index card}} \quad \text{Round to the nearest hundredth,}$$

or approximately \$0.04 per index card.

Since \$0.03 is the lower of the two unit prices, the better buy is \$4.05 for 150 index cards.

# 4.R.2 Exercises

## Concept Check

**True/False.** Determine whether each statement is true or false. If a statement is false, explain how it can be changed so the statement will be true. (**Note:** There may be more than one acceptable change.)

1. Two hundred thousand, four hundred six and twelve hundredths can be written as 200,406.12.

2. 92.586 is greater than 92.6.

3. On a number line, any number to the left of another number is larger than that other number.

4. When a decimal number is rounded, all numbers to the right of the place of accuracy become zeros in the final answer.

## Practice

**5.** Write $2\frac{57}{100}$ in decimal notation.

**6.** Write 20.7 in words.

**7.** Write six and twenty-eight thousandths in decimal notation.

**8.** Arrange 0.2, 0.26, and 0.17 in order from smallest to largest. Then, graph the numbers on a number line.

**9.** Round 3.00652 to the nearest ten-thousandth.

**a.** The digit in the ten-thousandths position is ___.

**b.** The next digit to the right is ___.

**c.** Since ___ is less than 5, leave ___ as it is and replace ___ with 0.

**d.** So 3.00652 rounds to _____ to the nearest ten-thousandth.

## Applications

In each exercise, write the decimal numbers that are not whole numbers in words.

**10.** The tallest unicycle ever ridden was 114.8 feet tall, and was ridden by Sam Abrahams (with a safety wire suspended from an overhead crane) for a distance of 28 feet in Pontiac, Michigan, on January 29, 2004.

**11.** One quart of water weighs approximately 2.0825 pounds.

## Writing & Thinking

**12.** Discuss situations where you think it is particularly appropriate (or necessary) to write numbers in English word form.

**13.** With **a.** and **b.** as examples, explain in your own words how you can tell quickly when one decimal number is larger (or smaller) than another decimal number.

**a.** The decimal number 2.765274 is larger than the decimal number 2.763895.

**b.** The decimal number 17.345678 is larger than the decimal number 17.345578.