

**Practice  
7-5**

**Decimals and Fractions**

1. a) What is the word form of 0.59?
- A. Fifty-nine tenths                       C. Fifty-nine hundred  
 B. Fifty-nine hundredths                 D. Fifty-nine thousandths
- b) What is the fraction form of 0.59?
- A.  $\frac{59}{100}$                                        C.  $\frac{59}{1,000}$   
 B.  $\frac{59}{10}$                                          D.  $\frac{1}{59}$

2. Write the word form and fraction form of 0.654.

\_\_\_\_\_

3. Write  $\frac{19}{20}$  as a decimal without using long division.

\_\_\_\_\_

4. Convert  $\frac{13}{25}$  to a decimal.

\_\_\_\_\_

5. Which decimal below is equivalent to  $\frac{1}{9}$ ? The dots indicate that the repeating digits repeat without end.

A. 0.222...                                       C. 0.11  
 B. 0.111...                                       D. 0.111

6. A supply closet contains  $\frac{5}{9}$  of a school's crayons. Write  $\frac{5}{9}$  as a decimal rounded to the nearest hundredth.

\_\_\_\_\_

7. a) Reasoning Write 0.394 as a fraction.

~~b) Could you use the same method to write 0.394 as a mixed number? As an improper fraction? Explain.~~

8. Error Analysis Kyra tried to write  $\frac{197}{250}$  as a decimal without using long division. Her result, 0.197, is not equivalent to  $\frac{197}{250}$ .

a) What is the correct decimal equivalent?

b) ~~What could possibly be Kyra's mistake?~~

- A. ~~Kyra meant to multiply the numerator and denominator by 4 to make an equivalent fraction with denominator 1,000 but multiplied only the denominator by 4.~~
- B. ~~Kyra meant to divide the numerator and denominator by 2.5 to make an equivalent fraction with denominator 100 but divided only the denominator by 2.5.~~
- C. ~~Kyra meant to divide the numerator and denominator by 2.5 to make an equivalent fraction with denominator 100 but divided only the numerator by 2.5.~~
- D. ~~Kyra meant to multiply the numerator and denominator by 4 to make an equivalent fraction with denominator 1,000 but multiplied only the numerator by 4.~~

9. a) ~~Which decimal is equivalent to  $\frac{20}{30}$ ? The dots indicate that the repeating digits repeat without end.~~

- ~~A. 0.7222...~~
- ~~B. 0.7373...~~
- ~~C. 0.6666...~~
- ~~D. 0.6868...~~

b) ~~Writing Describe a possible problem using dots to represent repeating digits in a decimal. Describe, if you can, a different way to represent repeating digits in a decimal.~~

10. ~~Open-Ended Fractions with denominator 41 have decimal forms in which~~

~~5 digits repeat without end. Which decimal is equivalent to  $\frac{13}{41}$ ? A calculator may be used to find your answer.~~

- A. ~~0.31707...~~
- B. ~~0.31707~~
- C. ~~0.31707...~~
- D. ~~0.31707...~~

11. ~~Buying Chicken A package of chicken weighs  $\frac{2}{3}$  kg.~~

a) ~~Use a decimal to approximate  $\frac{2}{3}$ .~~

**Practice**  
**7-6****Comparing and Ordering Decimals and Fractions**

1. Compare 9.95 and 9.91 using a greater than or less than symbol.  
\_\_\_\_\_
2. Order the numbers 0.125, 0.129, and 0.12 from least to greatest.  
\_\_\_\_\_
3. Use a greater than or less than symbol to compare  $\frac{2}{5}$  and 0.4. Change the decimal to a fraction first.
4. Use a greater than or less than symbol to compare 0.31 and  $\frac{1}{3}$ . Change the fraction to a decimal first.
5. Order the numbers 0.56, 0.53, and  $\frac{1}{2}$  from greatest to least.  
\_\_\_\_\_
6. Order the numbers  $\frac{2}{7}$ , 0.26, and 0.21 from least to greatest.  
\_\_\_\_\_
7. **Reasoning** Compare the decimals 7.131 and 7.134 using a greater than or less than symbol. Explain how you can use a number line to compare the two values.
8. **Construction** Zach wants to drill a hole with diameter no more than 0.5 inch. Can he use a  $\frac{2}{5}$ -inch drill bit? Answer this question by changing the decimal to a fraction.

~~9. a) Writing Compare 0.03 and  $\frac{11}{12}$  using a greater than, less than, or equal symbol.  
Change the fraction to a decimal first.~~

~~b) When comparing a decimal and a fraction, do you prefer to change the decimal to a fraction or change the fraction to a decimal? Why?~~

10. ~~Estimation Round the decimals to the nearest tenth. Then use these rounded values to order the numbers 0.87, 0.81,  $\frac{3}{5}$ , and  $\frac{7}{20}$  from greatest to least.~~

11. a) Error Analysis Suzie claims that the greatest of the numbers 0.49, 0.41,  $\frac{4}{9}$ ,  $\frac{4}{7}$  is  $\frac{4}{7}$  and the least is  $\frac{4}{9}$ . Order the numbers from least to greatest.

~~b) What was Suzie's likely error?~~

- ~~A. She stopped dividing after only one place when finding the decimal equivalent of  $\frac{4}{7}$ .~~
- B. She divided the denominator of  $\frac{4}{9}$  by its numerator to find the decimal equivalent.
- ~~C. She stopped dividing after only one place when finding the decimal equivalent of  $\frac{4}{9}$ .~~
- ~~D. She switched the order of the two fractions.~~

12. ~~You ordered  $\frac{1}{4}$  pound of cheese at the market. The digital scale used to weigh the cheese read 0.25 pound.~~

~~a) Did you get less than, more than, or exactly the amount you requested? Answer this question by changing the decimal to a fraction.~~

**Practice  
7-5**

**Decimals and Fractions**

1. a) What is the word form of 0.59?
- A. Fifty-nine tenths                       C. Fifty-nine hundred
- B. Fifty-nine hundredths               D. Fifty-nine thousandths
- b) What is the fraction form of 0.59?
- A.  $\frac{59}{100}$                                        C.  $\frac{59}{1,000}$
- B.  $\frac{59}{10}$                                        D.  $\frac{1}{59}$

2. Write the word form and fraction form of 0.654.

Six-hundred fifty-four thousandths

3. Write  $\frac{19}{20}$  as a decimal without using long division.

$$\frac{19}{20} \xrightarrow{\times 5} \frac{95}{100} = 0.95$$

4. Convert  $\frac{13}{25}$  to a decimal.

$$\frac{13}{25} \xrightarrow{\times 4} \frac{52}{100} = 0.52$$

5. Which decimal below is equivalent to  $\frac{1}{9}$ ? The dots indicate that the repeating digits repeat without end.

- A. 0.222...                                       C. 0.11
- B. 0.111...                                       D. 0.111

6. A supply closet contains  $\frac{5}{9}$  of a school's crayons. Write  $\frac{5}{9}$  as a decimal rounded to the nearest hundredth.

$$0.5\overline{5}5 \rightarrow 0.56$$

7. a) Reasoning Write 0.394 as a fraction.

$$\frac{394}{1000} \div 2 = \frac{197}{500}$$

~~b) Could you use the same method to write 0.394 as a mixed number? As an improper fraction? Explain.~~

8. **Error Analysis** Kyra tried to write  $\frac{197}{250}$  as a decimal without using long division. Her result, 0.197, is not equivalent to  $\frac{197}{250}$ .

$$\frac{197}{250} \begin{matrix} \times 4 \\ \hline \end{matrix} = \frac{788}{1000} = 0.788$$

a) What is the correct decimal equivalent?

b) What could possibly be Kyra's mistake?

- A. Kyra meant to multiply the numerator and denominator by 4 to make an equivalent fraction with denominator 1,000 but multiplied only the denominator by 4.
- B. Kyra meant to divide the numerator and denominator by 2.5 to make an equivalent fraction with denominator 100 but divided only the denominator by 2.5.
- C. Kyra meant to divide the numerator and denominator by 2.5 to make an equivalent fraction with denominator 100 but divided only the numerator by 2.5.
- D. Kyra meant to multiply the numerator and denominator by 4 to make an equivalent fraction with denominator 1,000 but multiplied only the numerator by 4.

9. a) Which decimal is equivalent to  $\frac{20}{30}$ ? The dots indicate that the repeating digits repeat without end.

- A. 0.7222...
- B. 0.7272...
- C. 0.6000...
- D. 0.6060...

b) **Writing** Describe a possible problem using dots to represent repeating digits in a decimal. Describe, if you can, a different way to represent repeating digits in a decimal.

10. **Open-Ended** Fractions with denominator 41 have decimal forms in which

5 digits repeat without end. Which decimal is equivalent to  $\frac{13}{41}$ ? A calculator may be used to find your answer.

- A. 0.34707...
- B. 0.31707...
- C. 0.31407...
- D. 0.34407...

11. **Buying Chicken** A package of chicken weighs  $\frac{2}{3}$  kg.

a) Use a decimal to approximate  $\frac{2}{3}$ .

**Practice  
7-6**

**Comparing and Ordering Decimals and Fractions**

1. Compare 9.95 and 9.91 using a greater than or less than symbol.

$9.95 > 9.91$

2. Order the numbers 0.125, 0.129, and 0.12 from least to greatest.

$0.12, 0.125, 0.129$

0.125  
0.129  
0.120

3. Use a greater than or less than symbol to compare  $\frac{2}{5}$  and 0.4. Change the decimal to a fraction first.

$\frac{2}{5} = 0.4$

$\frac{2}{5} \quad \frac{4}{10} = \frac{2}{5}$

4. Use a greater than or less than symbol to compare 0.31 and  $\frac{1}{3}$ . Change the fraction to a decimal first.

$0.31 < \frac{1}{3}$

$0.\overline{33}$

5. Order the numbers 0.56, 0.53, and  $\frac{1}{2}$  from greatest to least.

$0.56, 0.53, \frac{1}{2}$

$\frac{1}{2} = 0.50$   
0.56  
0.53

6. Order the numbers  $\frac{2}{7}$ , 0.26, and 0.21 from least to greatest.

$0.21, 0.26, \frac{2}{7}$

$7 \overline{) 2.00}$   
 $\underline{-0.28}$   
20  
 $\underline{-14}$   
60

7. Reasoning Compare the decimals 7.131 and 7.134 using a greater than or less than symbol. Explain how you can use a number line to compare the two values.

$7.131 < 7.134$

7.134 will be slightly to the right of 7.131 and as a result will be slightly greater.

8. Construction Zach wants to drill a hole with diameter no more than 0.5 inch.

Can he use a  $\frac{2}{5}$ -inch drill bit? Answer this question by changing the decimal to a fraction.

Is  $\frac{2}{5} \leq 0.5 \rightarrow \underline{\underline{YES}} \quad 0.4 \leq 0.5$

9. a) Writing Compare 0.93 and  $\frac{11}{12}$  using a greater than or less than symbol.  
Change the fraction to a decimal first.

b) When comparing a decimal and a fraction, do you prefer to change the decimal to a fraction or change the fraction to a decimal? Why?

10. Estimation Round the decimals to the nearest tenth. Then use these rounded values to order the numbers 0.37, 0.31,  $\frac{3}{5}$ , and  $\frac{7}{20}$  from greatest to least.

11. a) Error Analysis Suzie claims that the greatest of the numbers 0.49, 0.41,  $\frac{4}{9}$ ,  $\frac{4}{7}$  is  $\frac{4}{7}$  and the least is  $\frac{4}{9}$ . Order the numbers from least to greatest.

$$\frac{4}{7} = 0.57$$

$$\begin{array}{r} 7 \overline{) 4.00} \\ \underline{-0} \phantom{0} \\ 40 \\ \underline{-35} \\ 50 \\ \underline{-49} \\ 1 \end{array}$$

- 0.49
- 0.41
- 0.44
- 0.57

$0.41, \frac{4}{9}, 0.41, \frac{4}{7}$

$$\frac{4}{9} = 0.4\bar{4}$$

b) What was Suzie's likely error?

- A. She stopped dividing after only one place when finding the decimal equivalent of  $\frac{4}{7}$ .
- B. She divided the denominator of  $\frac{4}{9}$  by its numerator to find the decimal equivalent.
- C. She stopped dividing after only one place when finding the decimal equivalent of  $\frac{4}{9}$ .
- D. She switched the order of the two fractions.

12. You ordered  $\frac{1}{4}$  pound of cheese at the market. The digital scale used to weigh the cheese read 0.25 pound.

a) Did you get less than, more than, or exactly the amount you requested?  
Answer this question by changing the decimal to a fraction.