

# 3.13

## Decimals as Fractions

### • Example 1

$$\begin{array}{ccc} 0.7 = \frac{7}{10} & 0.09 = \frac{9}{100} & 0.257 = \frac{257}{1000} \\ \begin{array}{l} \nearrow \\ \text{One place} \end{array} & \begin{array}{l} \nearrow \\ \text{Two places} \end{array} & \begin{array}{l} \nearrow \\ \text{Three places} \end{array} \\ \begin{array}{l} \nwarrow \\ \text{One zero} \end{array} & \begin{array}{l} \nwarrow \\ \text{Two zeros} \end{array} & \begin{array}{l} \nwarrow \\ \text{Three zeros} \end{array} \end{array}$$

### • • • CHECK YOURSELF 1

Write as common fractions.

a. 0.3

b. 0.311

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### • Example 2

Convert 0.395 to a fraction and reduce the result to lowest terms.

Divide the numerator and denominator by 5.

$$0.395 = \frac{395}{1000} = \frac{79}{200}$$

### • • • CHECK YOURSELF 2

Write 0.275 as a common fraction.

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### • • • CHECK YOURSELF ANSWERS

1. (a)  $\frac{3}{10}$ ; (b)  $\frac{311}{1000}$ .      2.  $0.275 = \frac{11}{40}$ .

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# 3.13 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_

Write each of the following as a common fraction or mixed number.

- |           |           |
|-----------|-----------|
| 1. 0.9    | 2. 0.3    |
| 3. 0.8    | 4. 0.6    |
| 5. 0.37   | 6. 0.97   |
| 7. 0.587  | 8. 0.379  |
| 9. 0.48   | 10. 0.75  |
| 11. 0.58  | 12. 0.65  |
| 13. 0.425 | 14. 0.116 |
| 15. 0.375 | 16. 0.225 |

**A N S W E R S**

17. 0.136

18. 0.575

17. \_\_\_\_\_

18. \_\_\_\_\_

19. 0.059

20. 0.067

19. \_\_\_\_\_

20. \_\_\_\_\_

21. 0.0625

22. 0.0425

21. \_\_\_\_\_

22. \_\_\_\_\_

23. 0.7

24. 0.66

23. \_\_\_\_\_

24. \_\_\_\_\_

25. 0.41

26. 0.863

25. \_\_\_\_\_

26. \_\_\_\_\_

27. 0.35

28. 0.36

27. \_\_\_\_\_

28. \_\_\_\_\_

29. 0.325

30. 0.248

29. \_\_\_\_\_

30. \_\_\_\_\_

31. 0.875

32. 0.037

31. \_\_\_\_\_

32. \_\_\_\_\_