



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

## Percents and Decimals (pages 334–336)

You have seen that percents can be written as fractions. Percents can also be written as decimals, and decimals can be written as percents.

<b>Writing a Percent as a Decimal</b>	To write a percent as a decimal, follow these steps. <ul style="list-style-type: none"> <li>• Rewrite the percent as a fraction with a denominator of 100.</li> <li>• Express the fraction as a decimal.</li> </ul>
<b>Writing a Decimal as a Percent</b>	To write a decimal as a percent, follow these steps. <ul style="list-style-type: none"> <li>• Rewrite the decimal as a fraction with a denominator of 100.</li> <li>• Express the fraction as a percent.</li> </ul>

### EXAMPLES

**A** Express 56% as a decimal.

$$56\% = \frac{56}{100} \text{ which is } 0.56$$

**B** Express 0.84 as a percent.

$$0.84 = \frac{84}{100} \text{ which is } 84\%$$

**C** Express 0.35% as a decimal.

$$\begin{aligned} 0.35\% &= \frac{0.35}{100} \text{ Multiply by } \frac{100}{100} \text{ to get rid of} \\ &\quad \text{the decimal in the numerator.} \\ &= \frac{35}{10,000} \text{ which is } 0.0035 \end{aligned}$$

**D** Express 0.103 as a percent.

$$\begin{aligned} 0.103 &= \frac{103}{1,000} \text{ Divide numerator and} \\ &\quad \text{denominator by 10.} \\ &= \frac{10.3}{100} \text{ which is } 10.3\% \end{aligned}$$

### Try These Together

1. Express 0.4% as a decimal.

*HINT: Rewrite as a fraction with a denominator of 100. Then multiply numerator and denominator by 10.*

2. Express 0.09 as a percent.

*HINT: Rewrite as a fraction with a denominator of 100.*

### PRACTICE

**Express each percent as a decimal.**

3. 27%

4. 18%

5. 46%

6. 55%

7. 72%

8. 91%

9. 11%

10. 34.5%

**Express each decimal as a percent.**

11. 0.14

12. 0.87

13. 0.25

14. 0.61

15. 0.59

16. 0.12

17. 0.73

18. 0.063



**19. Standardized Test Practice** In a taste test at a grocery store, people were given a chip with salsa on it and asked if they would buy the salsa. Of those who answered, 67% said “yes.” Express this percent as a decimal.

**A** 0.22

**B** 0.67

**C** 0.34

**D** 0.50

**Answers:** 1. 0.004 2. 9% 3. 0.27 4. 0.18 5. 0.46 6. 0.55 7. 0.72 8. 0.91 9. 0.11 10. 0.345 11. 14% 12. 87% 13. 25% 14. 61% 15. 59% 16. 12% 17. 73% 18. 6.3% 19. B