9.5 (Page 338) Fractions, Decimals, & Percents

Decimal -> Percent: Express the decimal as a fraction with a denominator of 100. Then, change the fraction to a percent

Example: Express each decimal as a percent.

1.) $0.36 = \frac{36}{100} = 36\%$

2.) $0.7 = \frac{70}{100} = \frac{70}{100} = 70\%$

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Example: Express each decimal as a percent.

3.) $0.475 = \frac{475}{1000} = \frac{47.5}{100} = 47.5\%$

4.) $0.003 = \frac{.3}{1000} = \frac{0.3}{100} = 0.3\%$

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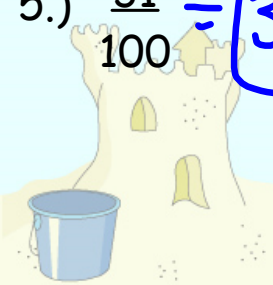
Fraction -> Percent: Multiply to get the denominator of the fraction to be 100. If not, use the cross multiplying method used in chapter 9 section 4.

Example: Express each fraction as a percent.

5.) $\frac{31}{100} = 31\%$

6.) $\frac{1 \times 4}{25 \times 4} = \frac{4}{100} = 4\%$



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Example: Express each fraction as a percent.

7.) $\frac{9}{13} = \frac{r}{100}$

$\frac{900}{13} = \frac{13r}{13}$

$r \approx 69.2\%$

$13\overline{)900.0000}$ = 69.2307

-78

120

-117

30

-26

40

-39

100

-91

9

8.) $\frac{5}{8} = \frac{r}{100}$

$\frac{500}{8} = \frac{8r}{8}$

$r = 62.5\%$

$8\overline{)500}$ = 62.5

48

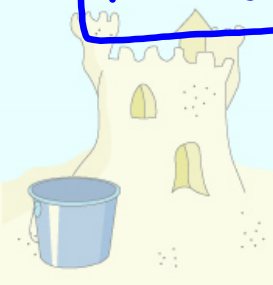
20

-16

40

-40

0



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Percent -> Fraction in simplest form: Express the percent with a denominator of 100 and simplify

Example: Express each percent as a fraction in simplest form.

9.) $60\% = \frac{60}{100} = \frac{6 \div 2}{10 \div 2} = \frac{3}{5}$

10.) $32\% = \frac{32 \div 4}{100 \div 4} = \frac{8}{25}$

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Example: Express each percent as a fraction in simplest form.

11.) $87.5\% = \frac{87.5}{100.0} = \frac{875 \div 25}{1000 \div 25} = \frac{35 \div 5}{40 \div 5} = \frac{7}{8}$

12.) $0.05\% = \frac{0.05}{100.00} = \frac{5 \div 5}{10000 \div 5} = \frac{1}{2000}$

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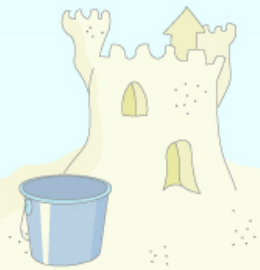
Percent -> Decimal: Rewrite the decimal as a fraction & then the fraction as a decimal.

Example: Express each percent as a decimal.

13.) $28\% = \frac{28}{100} = 0.28$

14.) $80\% = \frac{80}{100} = 0.80$ or 0.8



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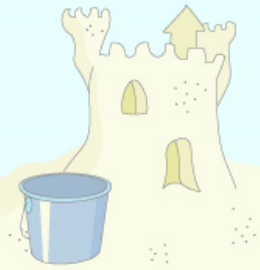
Example: Express each percent as a decimal.

15.) $66.5\% = \frac{66.5}{100} = \frac{665}{1000} = 0.665$

16.) $0.07\% = \frac{0.07}{100} = \frac{7}{10000} = 0.0007$



9.5 (Page 338) Fractions, Decimals, & Percents

Example: Complete the table with the missing portions.

Fraction	Decimal	Percent
$\frac{1}{4} \times\frac{25}{25} = \frac{25}{100}$	0.25	25%
$\frac{53}{100}$	0.53 $\frac{53}{100}$	53%
$\frac{58}{100} \div 2 = \frac{29}{50}$	0.58	58% $\frac{58}{100}$

9.5 (Page 338) Fractions, Decimals, & Percents

Example: Complete the table with the missing portions.

Fraction	Decimal	Percent
$\frac{1}{8}$	0.125	12.5% $\frac{12.5}{100} \cdot \frac{125}{1000}$
$\frac{6}{1000} \div 2 = \frac{3}{500}$	0.006 $\frac{6}{1000}$	0.6% $\frac{0.6}{100}$
$\frac{1875}{10000} \div 625 = \frac{3}{16}$	0.1875	18.75%

$\frac{1}{8} = \frac{r}{100}$

$100 = 8r$

$r = 12.5\%$

$\frac{1875}{10000} = \frac{1875 \div 5}{10000 \div 5}$

$= \frac{375 \div 5}{2000 \div 5}$

$= \frac{75 \div 5}{400 \div 5}$

$= \frac{15 \div 5}{80 \div 5} = \frac{3}{16}$