

NS8-53: Percents

A **percent** is a ratio that compares a number to 100. The term "percent" means "out of 100" or "for every 100." For instance, 84% on a test means 84 out of 100.

You can think of percent as a short form for a fraction with 100 in the denominator:

Example: $45\% = \frac{45}{100}$

1. Write the following percents as fractions:

a) $17\% = \frac{17}{100}$ b) $34\% = \frac{34}{100} = \frac{17}{50}$ c) $10\% = \frac{10}{100} = \frac{1}{10}$ d) $29\% = \frac{29}{100}$
 e) $45\% = \frac{45}{100} = \frac{9}{20}$ f) $100\% = \frac{100}{100} = 1$ g) $1\% = \frac{1}{100}$ h) $80\% = \frac{80}{100} = \frac{4}{5}$

2. Write the following fractions as percents:

a) $\frac{50}{100} = 50\%$ b) $\frac{46}{100} = 46\%$ c) $\frac{62}{100} = 62\%$ d) $\frac{100}{100} = 100\%$
 e) $\frac{25}{100} = 25\%$ f) $\frac{99}{100} = 99\%$ g) $\frac{90}{100} = 90\%$ h) $\frac{1}{100} = 1\%$

3. Write the following decimals as percents, by first turning them into fractions. The first one has been done for you:

a) $.72 = \frac{72}{100} = 72\%$ b) $.54 = \frac{54}{100} = 54\%$ c) $.09 = \frac{9}{100} = 9\%$

4. Write the fraction as a percent by changing it to a fraction over 100. The first one has been done for you:

a) $\frac{3 \times 20}{5 \times 20} = \frac{60}{100} = 60\%$ b) $\frac{4}{5} = \frac{80}{100} = 80\%$
 c) $\frac{5}{5} = \frac{100}{100} = 100\%$ d) $\frac{9}{10} = \frac{90}{100} = 90\%$
 e) $\frac{3}{4} = \frac{75}{100} = 75\%$ f) $\frac{1}{2} = \frac{50}{100} = 50\%$
 g) $\frac{1}{10} = \frac{10}{100} = 10\%$ h) $\frac{3}{20} = \frac{15}{100} = 15\%$
 i) $\frac{13}{20} = \frac{65}{100} = 65\%$ j) $\frac{8}{25} = \frac{32}{100} = 32\%$
 k) $\frac{18}{25} = \frac{72}{100} = 72\%$ l) $\frac{24}{25} = \frac{96}{100} = 96\%$
 m) $\frac{37}{50} = \frac{74}{100} = 74\%$ n) $\frac{43}{50} = \frac{86}{100} = 86\%$