

Check Your Answers on Percents (Part 1)!

- 1) All passed! No, this is not a trick question! 100% means 100 out of 100 or all parts out of the whole. It is not necessary to know the number of students because they ALL passed!!

Additional Note: Although percent change can be greater than 100%, it is not possible to have more than 100% of anything!

- 2) 75 pennies = 75¢ = \$0.75 Percent is the number of parts per hundred. 75% means 75 parts out of 100 or 75 pennies out of one dollar. Hopefully Wally will plan to give his little brother \$0.75 in coins other than pennies!

- 3) $\frac{51}{100}$ Because percent is the number of parts per hundred, 51% means 51 parts out of 100 which in this case means 51 miles out of 100 miles. The numerator is 51 and the denominator of the fraction is 100. Because there are no common factors between the numerator and denominator, this fraction is in simplified form. If Sally is travelling by car, she might be able to rest within the hour!

- 4) $\frac{12}{25}$ ($48\% = \frac{48}{100} \div \frac{4}{4} = \frac{12}{25}$) Again, percent is the number of parts per hundred which, in this case, means 48 parts out of 100. However a fraction with the numerator 48 and denominator 100 is not in simplified form. Divide by a form of one, preferably the GCF (greatest common factor), which will simplify the fraction but not change its value.

- 5) 0.15 ($15\% = 15.\% = 0.15.$) 15% means 15 parts out of 100 which is the fraction $\frac{15}{100}$. This would be read as 15 hundredths. In a decimal, the hundredths place is the second position to the right of the decimal point. To convert a percent directly to a decimal, move the decimal point two place values to the left.

Note: Although there is no decimal point shown in 15%, it is understood that the decimal point is after the 5.

- 6) 12.50 ($1250\% = 1250.\% = 12.50.$) To convert a percent directly to a decimal, move the decimal point two place values to the left. Although there is no decimal point shown in 1250%, it is understood that the decimal point is after the 0.

Note: The answer can be stated as 12.5; the 0 is no longer needed.

- 7) 0.0004 ($0.04\% = .0004 = 0.0004$) Again, move the decimal point two place values to the left, adding zeros as necessary.

- 8) $\frac{9}{200}$ ($4.5\% = \frac{4.5}{100} \cdot \frac{10}{10} = \frac{45}{1000} \div \frac{5}{5} = \frac{9}{200}$) Eliminate the fraction in the numerator by multiplying by a form of one before simplifying the fraction.

- 9) $\frac{2}{25} = 0.08$ ($8\% = \frac{8}{100} \div \frac{4}{4} = \frac{2}{25} = 0.08$) In this case, it is easier to convert the fraction $\frac{8}{100}$ to a decimal before simplifying. The fraction $\frac{8}{100}$ is read as eight hundredths which is the second place value to the right of the decimal point.

- 10) $1.50 = \frac{3}{2}$ or $1\frac{1}{2}$ ($150\% = 150.\% = 1.50. = \frac{150}{100} \div \frac{50}{50} = \frac{3}{2} = 1\frac{1}{2}$)

Rather than convert the decimal 1.50 or 1.5 to a fraction with a decimal point in the numerator, it is easier to convert the percent directly to a fraction, simplifying and then rewriting as a mixed number if needed.