1.9 Percentages Solutions

In this worksheet, you will practice converting between fractions, decimals, percentages, and try a few word problems. Questions in Problem 3 and the word problems allow the use of a calculator, so use one if you have it! If you would like further explanation before attempting these problems, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

1 For each problem, convert from a fraction or a decimal to a percentage. Don't use a calculator yet!

    a. 20%   b. 40%

    c. 50%   d. 75%

    e. 75%   f. 75.2%

2 For each problem, convert from a percentage to a fraction *and* a decimal. Still, no calculator!

    a. $\frac{2}{5} = .4$ b. $\frac{1}{2} = .5$

    c. $\frac{7}{10} = .7$ d. $\frac{1}{20} = .05$

    e. $\frac{3}{20} = .15$ f. $\frac{1}{10} = .1$

3 For each problem, use your calculator (Yes, you can finally use it!) to convert each to a percentage, rounded to the nearest tenth of a percentage.

    a. 33.3%   b. 55.6%

    c. 83.3%   d. 14.3%

4 * Greg went to the store to buy jeans. He bought jeans that were 20% off for $18.20, before tax. What was the original price of the jeans?

  (d) 22.75

5 * Deanna gave As to 8 people in her 30-person class. What percentage, rounded to the nearest tenth of a percent, of the class did not get As?

  (b) 73.3%

Additional Resources:

- Khan Academy video explaining decimals, percents, and fractions: `http://www.youtube.com/watch?v=-gB1y-PMWfs`

- A detailed solution to problem 1.d: `http://youtu.be/HDWbz1Y55hQ`

- A detailed solution to problem 4: `http://youtu.be/YKMrYnTKZAc`

- A detailed solution to problem 5: `http://youtu.be/v1CMLj2W1WI`