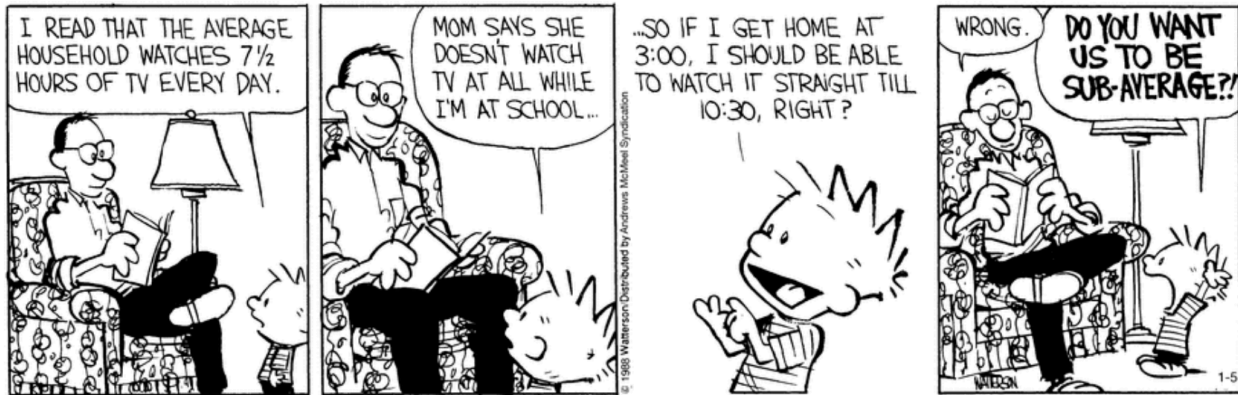


MATH 8 Chapter 4: Understanding Percent

Percents less than 1 and greater than 100 (decimal and fraction percents)

4.1 Representing Percents p. 122-129



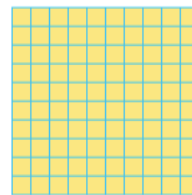
_____ means “out of 100”. It’s another name for hundredths. For example:

65% means 65 out of 100 or $\frac{65}{100}$ or 0.65

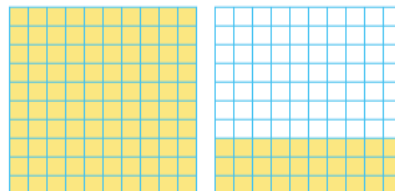
Explore the Math

How can you represent percents on a grid?

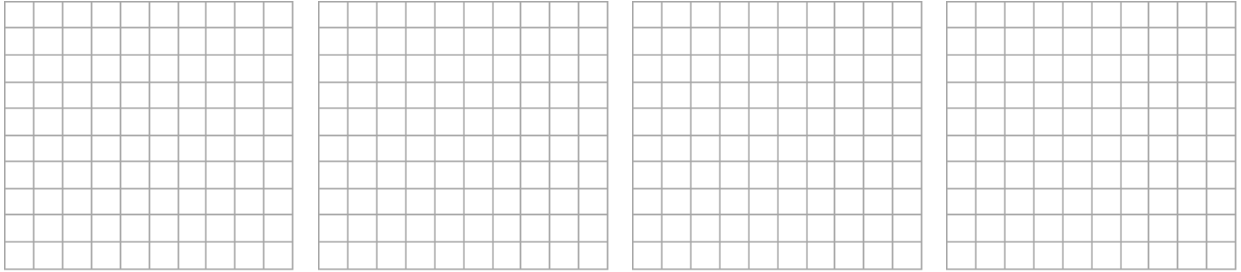
1. a) The hundred grid shows 100%.
How many squares are shaded?



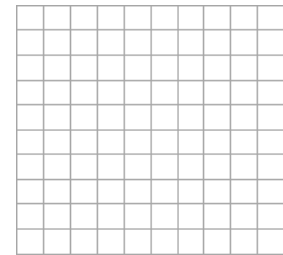
- b) Explain how the following diagram shows 130%.



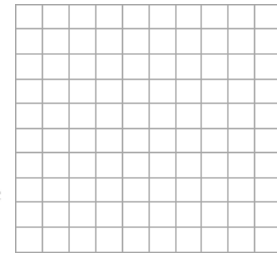
- c) Shade hundred grids to show 350%. How many squares did you shade?



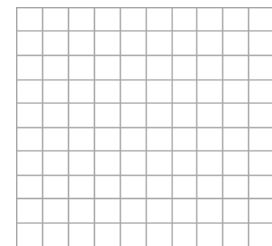
2. a) Shade a hundred grid to show half of 100%. How many squares did you shade? What percent of the whole grid do the shaded squares represent?



- b) Shade a hundred grid to show half of your answer to part a). How many squares did you shade? What percent of the whole grid do the shaded squares represent?

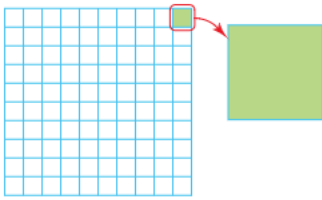


- c) Shade a hundred grid to show half of your answer to part b). How many squares did you shade? What percent of the whole grid do the shaded squares represent?



- d) How does the type of number represented by the percent value in part c) differ from the types of numbers in parts a) and b)? Explain why.

3. The circled square represents 1% on the hundred grid shown.



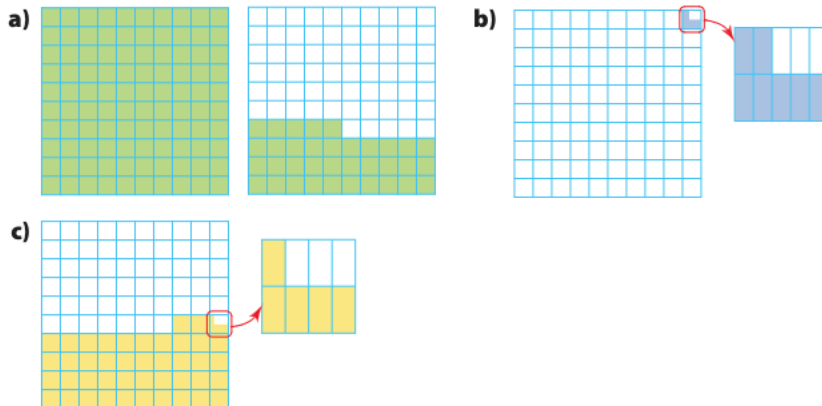
- a) What fraction of the enlarged square would you need to shade to show half of 1%? What percent of the whole grid would your shaded portion represent?

- b) What fraction of a 1% square would you need to shade to represent $\frac{3}{4}$ %?

- c) What fraction of a 1% square would you need to shade to represent 0.37%?

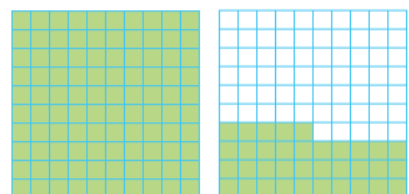
Example 1: Determine the Percent Represented on a Grid

One completely shaded grid represents 100%. What percent does each diagram represent?

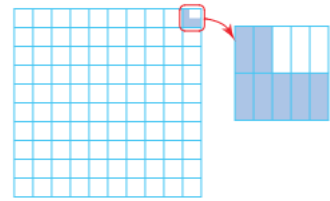


Solution

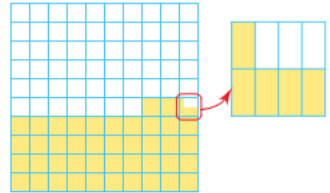
a)



b)

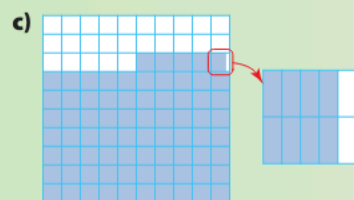
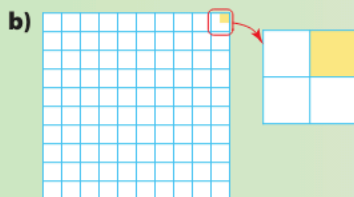
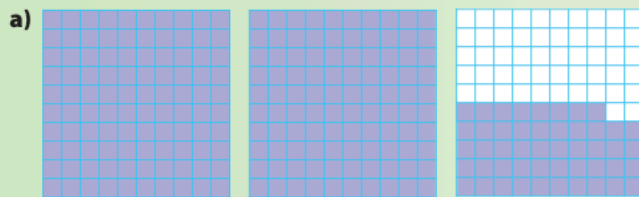


c)



Show You Know

One completely shaded grid represents 100%. What percent does each diagram represent?



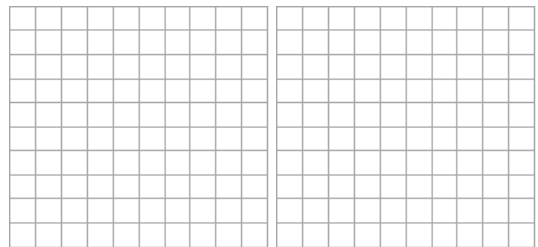
Example 2: Represent Percents on a Grid

Represent the percent in each statement on a grid.

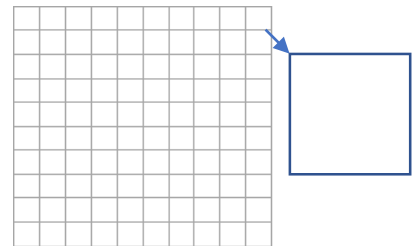
- a) An orange juice container shows that one 250-mL serving contains 120% of the recommended daily value of Vitamin C.
- b) A significant portion of the world’s fresh water is found in Canada, but Canada has only 0.5% of the world’s population.
- c) A credit card company charges an interest rate of $18\frac{3}{4}\%$ on unpaid balances.

Solution

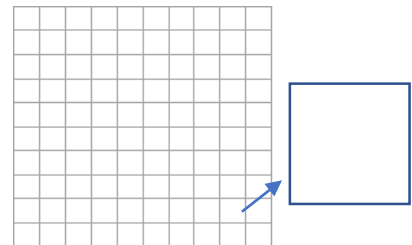
a)



b)



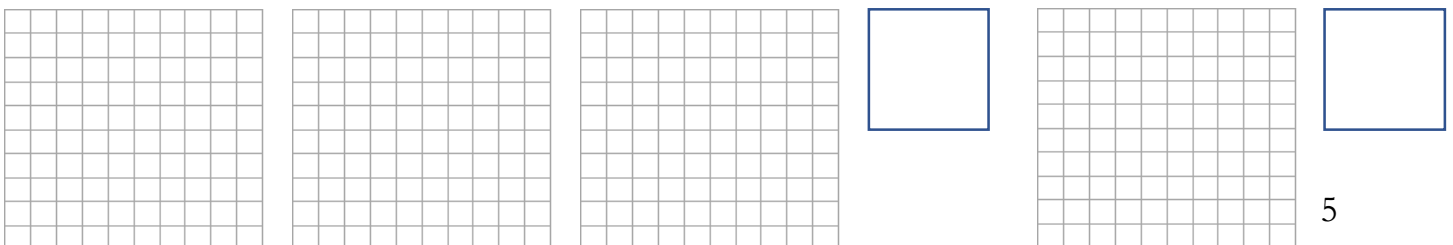
c)



Show You Know

Represent each percent on a grid.

- a) 180%
- b) 0.6%
- c) $12\frac{3}{8}\%$



Apply & Extend: p.128-129 #4, 5, 6, 8, 9, 11, 12, 14

