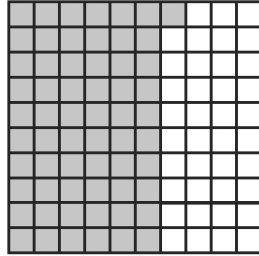
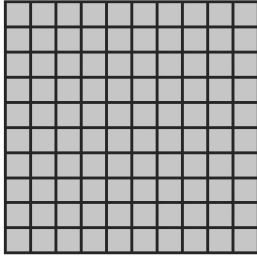


8.1 Understanding Large and Small Percents

Example 1: Determine the Percent Represented on a Grid

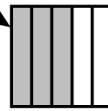
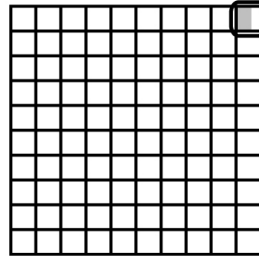
One completely shaded grid represents 100%. What percent does each diagram represent?

a)



$$161\% = 1.61$$

b)



$$\frac{3}{5}\% \text{ OR } 0.6\% \approx 0.006$$

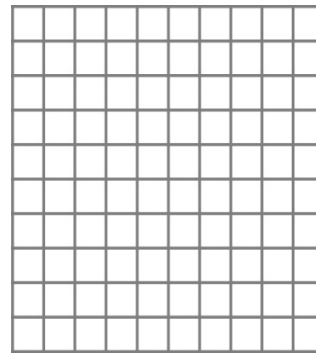
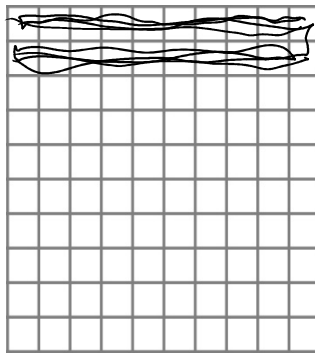
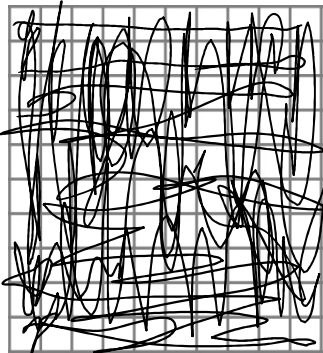
SHOW YOU KNOW: Turn to page 258 and write the percent that each diagram represents.

a) 120% b) $\frac{1}{2}\% = 0.5\%$ c) $42\frac{5}{8}\% = 42.625\%$

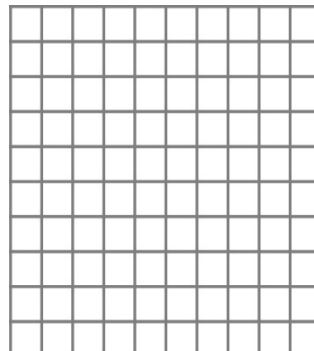
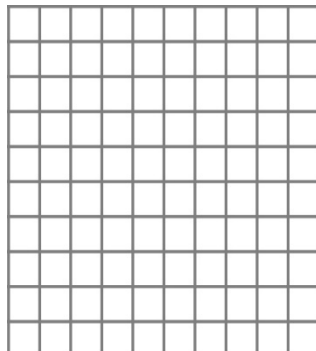
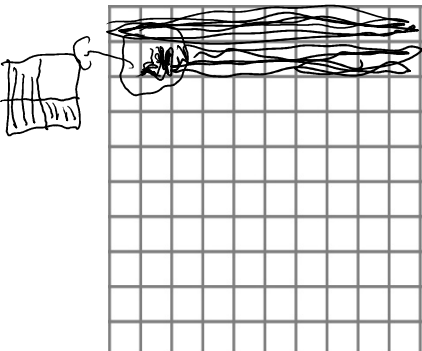
Example 2: Representing Percents on a Grid

Represent the percent in each statement on a grid below.

- a) An orange juice container shows that one 250-mL serving contains 120% of the recommended daily value of Vitamin C.

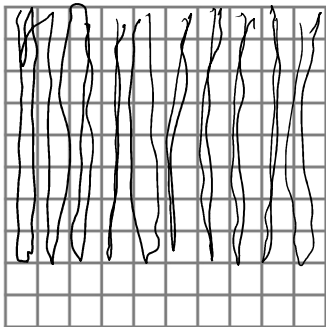
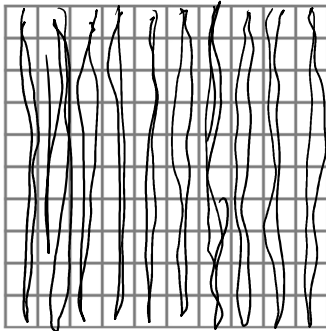


- b) A credit card company charges an interest rate of $18\frac{3}{4}\%$ on unpaid balances.

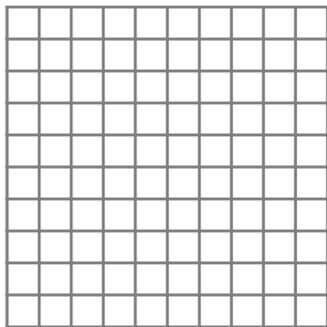
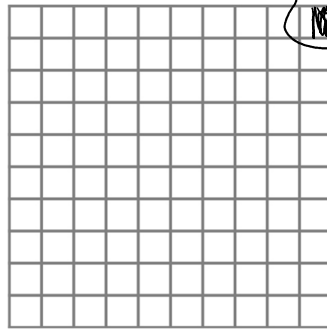


SHOW YOU KNOW: Represent each percent on a grid.

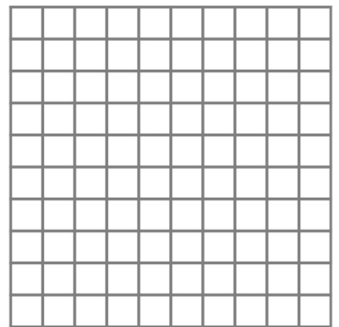
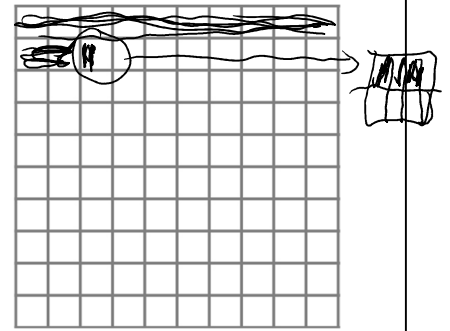
a) 180%



b) 0.6% $\frac{6}{10} \div 10 = \frac{3}{5} \div 10$



c) $12\frac{3}{8}\%$



Example 3: Determining a Large or Small Percentage

The population of a town 5 years ago was 100,000. Currently the town has a population of 125,000.

a) Determine the percent increase in the population.

$$\text{increase } 25000 \quad \frac{25000}{100000} = \frac{25}{100} = 25\%$$

b) Determine the current population as a percentage of the old one.

$$\frac{125000}{100000} = 1.25 = 125\%$$

A cereal used to cost \$9.97 but now goes for \$9.89. Determine the percent decrease in the price.

$$\begin{aligned} \text{decrease } \$0.08 & \quad \frac{0.08}{9.97} = 0.008024072 \\ 9.97 - 9.89 & \quad \times 100 \\ & = 0.8\% \end{aligned}$$