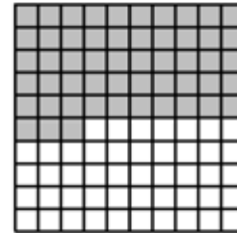


Percents

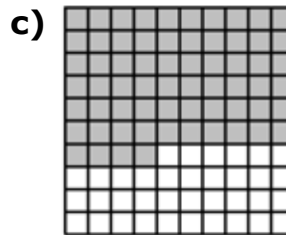
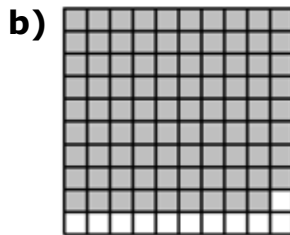
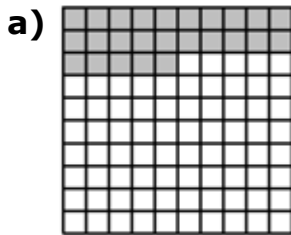
Percent means out of 100.

A percent can be represented by shading on a hundred grid.

This grid represents 53%.

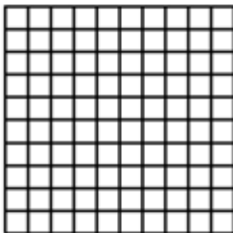


1. What percent is shown on each grid?

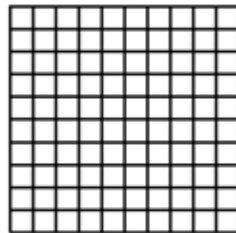


2. Shade hundred grids to represent each percent.

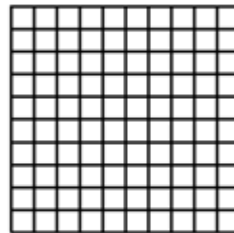
a) 3%



b) 46%

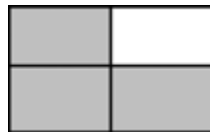


c) 97%



Fractions, Decimals, and Percents

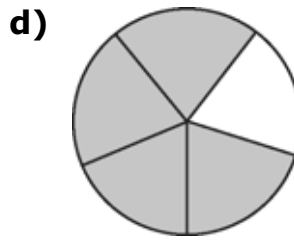
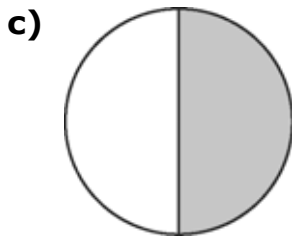
This diagram represents $\frac{3}{4}$.



This fraction is 0.75 or 75% of the square.

To change a decimal to a percent, multiply by 100 and add a percent symbol.

3. Show each diagram as a fraction, a decimal, and a percent.



Repeating Decimals

A **repeating decimal** contains one or more digits that repeat over and over without ending.

$$\frac{2}{3} = 0.\overline{6} \quad \boxed{2} \div \boxed{3} = 0.6666666\dots$$

Use a bar to show the repeating part.

To show as a percent, multiply the decimal by 100 and add a percent symbol.

$$0.\overline{6} = 66.\overline{6}\%$$

4. Show as repeating decimals.

a) 0.3333333

b) 0.4545454

c) 0.2727272

5. Show each fraction as a repeating decimal and as a percent.

a) $\frac{9}{11}$ b) $\frac{7}{9}$ c) $\frac{5}{6}$

Estimating Percents

To estimate the percent of a number, use percents you know.

52% of 250 is about 50% of 250.

50% of 250 is half of 250 or 125.

12% of 60 is about 10% of 60.

10% is about one tenth of 60 or 6.

6. Estimate each percent of a number.

a) 22% of 85 b) 48% of 102 c) 75% of 70 d) 82% of 91