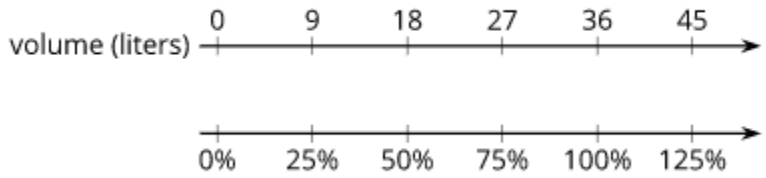
Unit 4 Glossary Terms

percentage

A percentage is a rate per 100.

For example, a fish tank can hold 36 liters. Right now there is 27 liters of water in the tank. The percentage of the tank that is full is 75%.



Unit rate

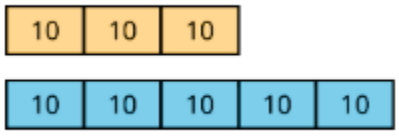
A unit rate is a rate per 1.

For example, 12 people share 2 pies equally. One unit rate is 6 people per pie, because $12 \div 2 = 6$. The other unit rate is $\frac{1}{6}$ of a pie per person, because $2 \div 12 = \frac{1}{6}$.

Tape diagram

A tape diagram is a group of rectangles put together to represent a relationship between quantities.

For example, this tape diagram shows a ratio of 30 gallons of yellow paint to 50 gallons of blue paint.



If each rectangle were labeled 5, instead of 10, then the same picture could represent the equivalent ratio of 15 gallons of yellow paint to 25 gallons of blue paint.

Long division

Long division is a way to show the steps for dividing numbers in decimal form. It finds the quotient one digit at a time, from left to right.

For example, here is the long division for $57 \div 4$,.

$$
\begin{array}{r}
14.25 \\
4\overline{)57.00} \\
-4 \\
\hline
17 \\
-16 \\
\hline
10 \\
-8 \\
\hline
20 \\
-20 \\
\hline
0
\end{array}
$$

Repeating decimal

A repeating decimal has digits that keep going in the same pattern over and over. The repeating digits are marked with a line above them.

For example, the decimal representation for $\frac{1}{3}$ is $0.\overline{3}$, which means 0.3333333 . . .

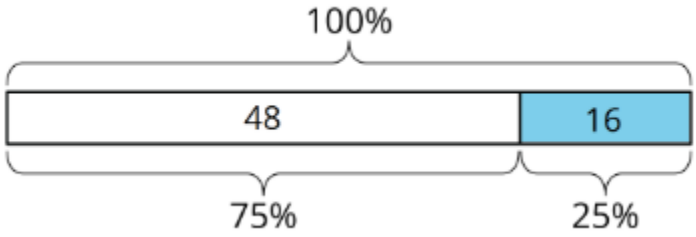
The decimal representation for $\frac{25}{22}$ is $1.1\overline{36}$ which means 1.136363636 . . .

Percentage decrease

A percentage decrease tells how much a quantity went down, expressed as a percentage of the starting amount.

For example, a store had 64 hats in stock on Friday. They had 48 hats left on Saturday. The amount went down by 16.

This was a 25% decrease, because 16 is 25% of 64.

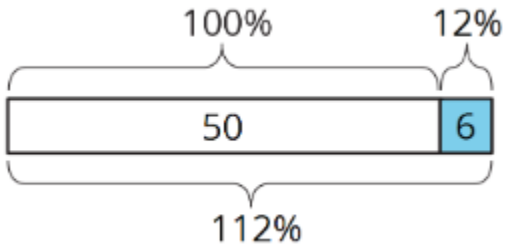


Percentage increase

A percentage increase tells how much a quantity went up, expressed as a percentage of the starting amount.

For example, Elena had $50 in the bank on Monday. She had $56 on Tuesday. The amount went up by $6.

This was a 12% increase, because 6 is 12% of 50.



measurement error

Measurement error is the positive difference between a measured amount and the actual amount.

For example, Diego measures a line segment and gets 5.3 cm. The actual length of the segment is really 5.32 cm. The measurement error is 0.02 cm, because $5.32 - 5.3 = 0.02$.

percent error

Percent error is a way to describe error, expressed as a percentage of the actual amount.

For example, a box is supposed to have 150 folders in it. Clare counts only 147 folders in the box. This is an error of 3 folders. The percent error is 2%, because 3 is 2% of 150.