

Math 4b



One percent (1%) means 1 per 100.

1 percent of quantity is a $\frac{1}{100}$ th part of it.



1% of this line is shaded green: it is very small, isn't it?

Let's have a look at several examples:

1) 1% of 100 is $\frac{1}{100} \cdot 100 = \frac{100}{100} = 1$

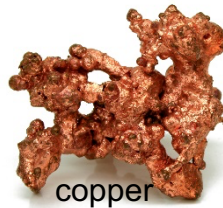
2) 7% of 200 is $7 \cdot \frac{1}{100} \cdot 200 = \frac{7}{100} \cdot 200 = \frac{7 \cdot 200}{100} = \frac{7 \cdot 2}{1} = 7 \cdot 2 = 14$

3) 120% of 250 is $120 \cdot \frac{1}{100} \cdot 250 = \frac{120 \cdot 250}{100} = \frac{120 \cdot 5}{2} = \frac{600}{2} = 300$

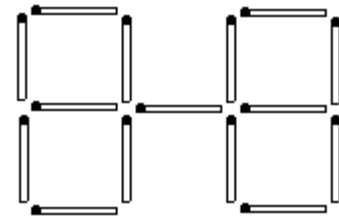
Homework

1. Write an expression to find 15% of a number a .
Calculate 15% of the following numbers: 1540, 220, and 10.
2. There are 200 pencils in the box. 3% of the pencils are red, 26% are yellow, and the rest are blue. How many red pencils are in the box?
3. There are 40000 books in a library. 75% of all books are in English, 10% of all books are in Spanish and the rest of the books are in French and German. How many books are there in the library in English and in Spanish?
4. In a department store, there is a sale of 25% off on everything. How much does the dress cost if its price before sale was \$80?

5. There are 255 seats in a theater. 170 tickets were sold for a movie. Which percent of the total number of seats will be empty if only 90% of the people, who bought tickets will show up for the movie?
6. Bronze is an alloy of tin and copper. (Tin and copper are metals; they are melted together to get an alloy which is called bronze). How much copper and how much tin are there in the 80 kg piece of bronze, if the ratio of tin to copper in bronze is 3 to 17?



7. Can you move two matches on the picture to make 5 equal squares.



8. Decipher the name of the goddess of comedy in Greek mythology by matching the fractions with the corresponding letters, arranging the fractions in ascending order:

$\frac{3}{5}$	$\frac{3}{9}$	$\frac{3}{15}$	$\frac{3}{18}$	$\frac{3}{7}$	$\frac{3}{2}$
I	A	H	T	L	A