CH- PERCENT

Read about PERCENT and try to understand.

Percent means for every hundred . So percent

Really is a fraction which has the denominator 100.

1. We have been studying fractions in which we found the denominator could be any number.

$$\frac{4}{7}, \quad \frac{6}{13}, \quad \frac{24}{130}, \quad \frac{153}{3152}$$

2. We have also been studying decimal fractions in which the denominator could be 10, 100, 1000....

$$\frac{9}{10}, \quad \frac{22}{100}, \quad \frac{512}{1000}, \quad \cdots\cdots$$

3. We learnt to express decimal fractions in decimals by removing the denominators the decimal point.

$$0.9, \ 0.22, \ 0.512$$

3. We will now study percentage, which is a special kind of fraction with only 100 as a denominator.

$$\frac{9}{100}, \frac{15}{100}, \frac{3}{100}, \frac{200}{100}$$

For percentage, we remove the denominator 100 and only write the numerator with the symbol of percentage %.

9%, 15%, 3%, 200%

Why do we need to learn 'percentage' ? For comparing.

Example-1 Piyush got 23 marks out of 25 in English and 42 marks out of 50 in Mathematics.

Piyush began to think that his performance was better in Maths forgetting that marks in English were out of 25 and in mathematics out of 50.

Let us help Piyush find the subject in which he scored more marks.

Piyush's marks : Let us find equivalent fractions with a denominator of 100.

English $\quad \dfrac{23}{25} \times \dfrac{4}{4} = \dfrac{92}{100}$ Mathematics $\quad \dfrac{42}{50} \times \dfrac{2}{2} = \dfrac{84}{100}$

Now we can compare $\dfrac{92}{100} > \dfrac{84}{100}$

Piyush has scored more marks in English.

A fraction which has 100 as a denominator can be written by only writing the numerator with the per cent sign %.

Example-2 $\dfrac{74}{100}$ can be written as 74%. $\dfrac{92}{100}$ can be written as 92%

It is important to know how to find equivalent fractions to be able to find per cent. Let us revise.

Review Exercise in Equivalent fractions

Turn these fractions into equivalent fractions with the denominator as 100.

Example $\quad \dfrac{7}{10} \times \dfrac{10}{10} = \dfrac{70}{100}$

(a) $\quad \dfrac{11}{20} \times \dfrac{\boxed{5}}{\boxed{5}} = \dfrac{\boxed{55}}{100}$

(b) $\quad \dfrac{15}{20} \times \dfrac{\boxed{}}{\boxed{}} = \dfrac{\boxed{}}{\boxed{}}$

(c) $\quad \dfrac{12}{25} \times \dfrac{\boxed{}}{\boxed{}} = \dfrac{\boxed{}}{\boxed{}}$

132

(d) $\dfrac{7}{10} \times \dfrac{\square}{\square} = \dfrac{\square}{\square}$ (e) $\dfrac{20}{25} \times \dfrac{\square}{\square} = \dfrac{\square}{\square}$ (f) $\dfrac{21}{25} \times \dfrac{\square}{\square} = \dfrac{\square}{\square}$ (g) $\dfrac{48}{50} \times \dfrac{\square}{\square} = \dfrac{\square}{\square}$

Per cent always compares a quantity to 100 only.

When you get 100/100 in Mathematics, you have scored 100%

You can become a number genius, if you get 100% in Mathematics. You can do it !

EXPLORING PERCENTAGE

In this lesson, we will explore the meaning of per cent.

Look at this figure. Count the squares. How many squares are shaded? Shaded squares = 11/100.
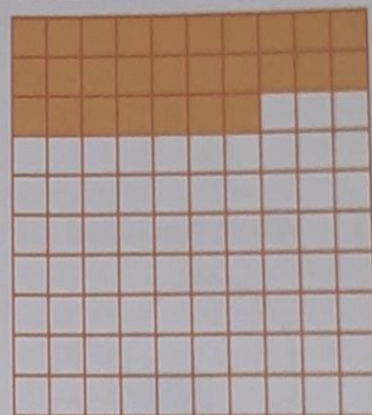
We can also write :

Shaded squares = 11%

Remember per cent (%) can only be used when you are comparing a quantity to 100.

Look at this figure. How many squares are shaded?

Shaded squares are 27/100 or 27%.

Only read and try to understand

****