

PERCENTAGE

It is a number / ratio expressed as a fraction of 100. It is denoted by percent sign "%".

X percent means= $X \% = X / 100$

Example: $50\% = 50 / 100 = 1 / 2$

Note

1. Any fraction can be expressed in terms of percentage.
2. Express a/b as percentage. $a / b = a / b * 100$

Percentage Increase	If the commodity price increases by X%, then the reduction in consumption so as not to increase the expenditure is:	$((X / (100+X)) * 100)\%$
Percentage Decrease	If the commodity price decreases by X%, then the reduction in consumption so as not to decrease the expenditure is:	$((X / (100-X)) * 100)\%$

Results on Population

Let P be the town population & it increases at the rate of R% per annum, then:

Population after n years	$= P (1 + R / 100)^n$
Population n years ago	$= P / (1 + R / 100)^n$

Results on Depreciation

Let P be the machine present value & it depreciates at the rate of R% per annum. Then:

S. No	Formula
1	Value of the machine after n years= $P(1 - R/100)^n$
2	Value of the machine n years ago= $P / (1 - R/100)^n$
3	If A is R% more than B, then B is less than A by $[(R / (100 + R)) * 100]$
4	If A is R% less than B, then B is more than A by $[(R / (100 - R)) * 100]$