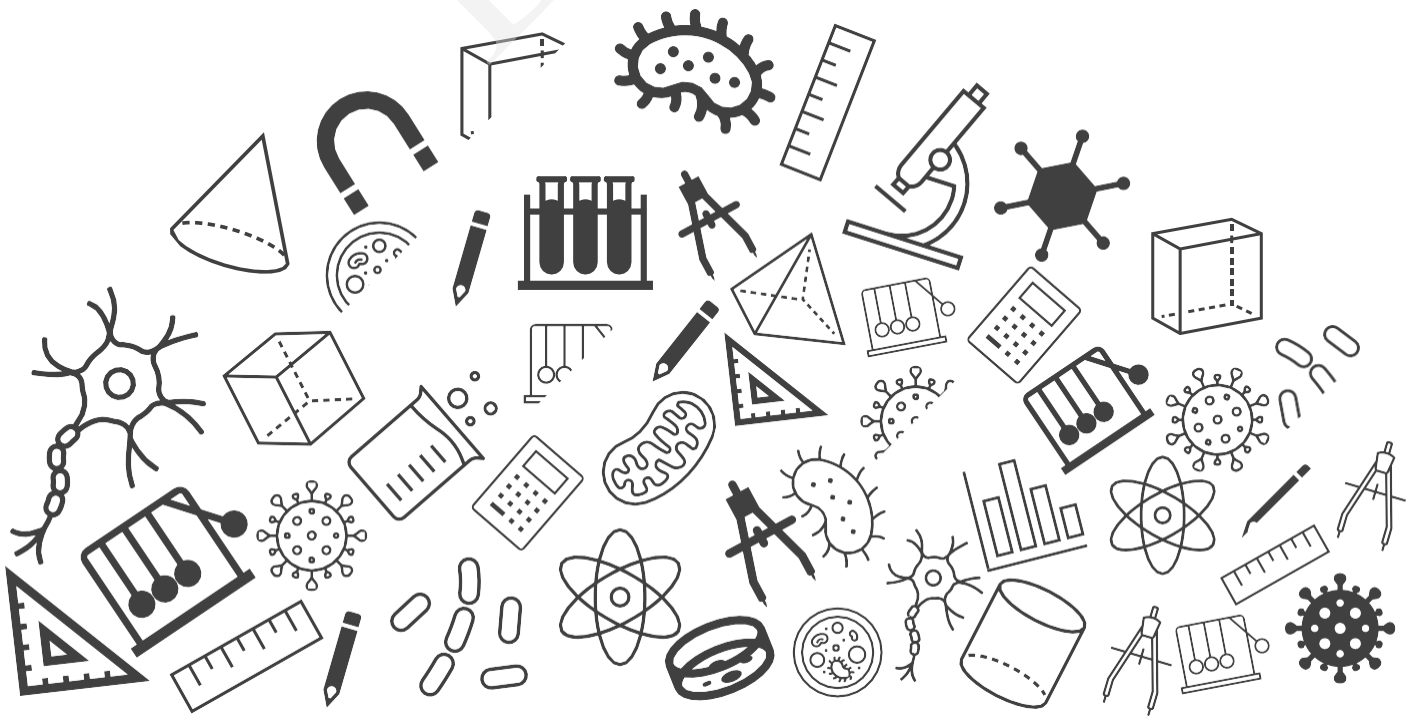
Grade 08
Maths Chapter Notes



BYJU'S Classes

Chapter Notes

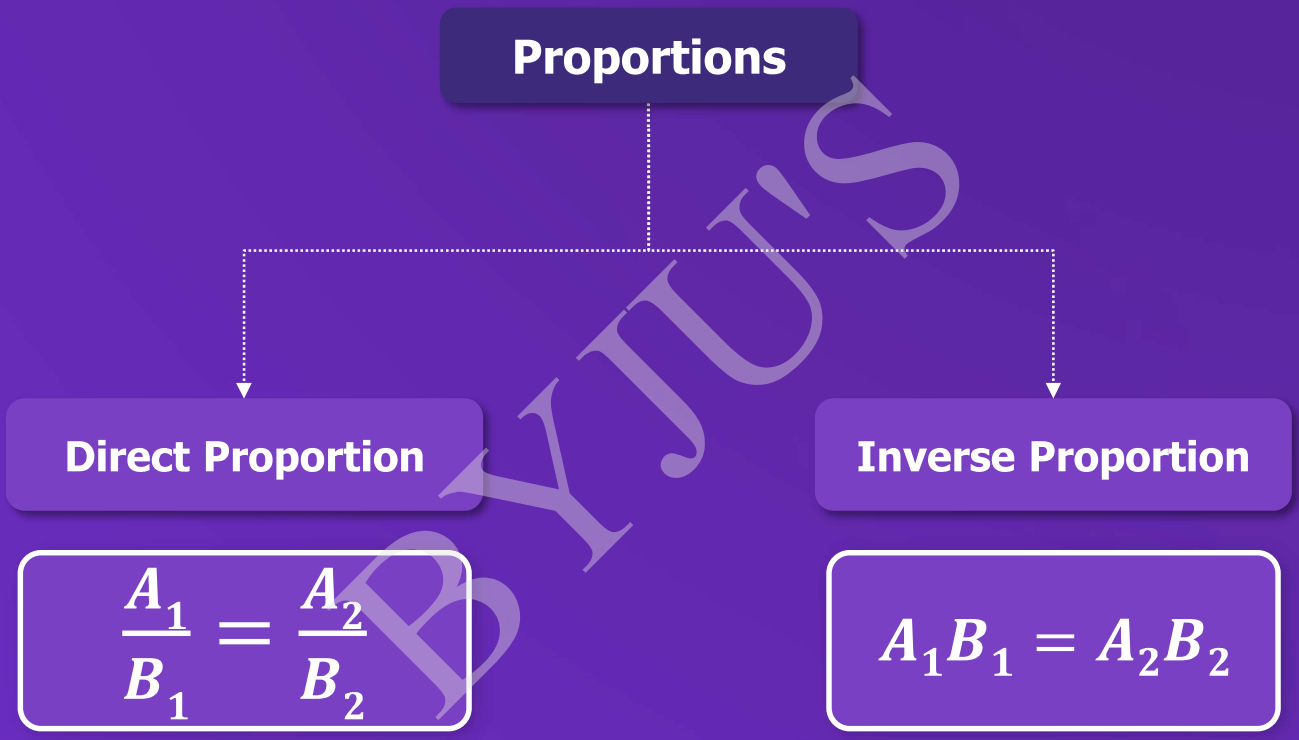
Direct and Inverse Proportions

Grade 08

Topics to be Covered

1. Direct Proportions
2. Inverse Proportions

Mind Map



1. Direct Proportions

Two quantities, **A** and **B**, are said to be in direct proportion if they increase or decrease together in such a manner that the ratio of their corresponding values remains constant.

Represented as $A \propto B$

$\frac{A}{B} = c$, where c is the proportionality constant

This can also be written as $\frac{A_1}{B_1} = \frac{A_2}{B_2}$

Example:
In the table below, cost (in Rs) always increasing when there is an increase in weight of sugar (in kg) such that ratio of cost and weight remains constant.

Cost ∝ Weight

2. Inverse Proportions

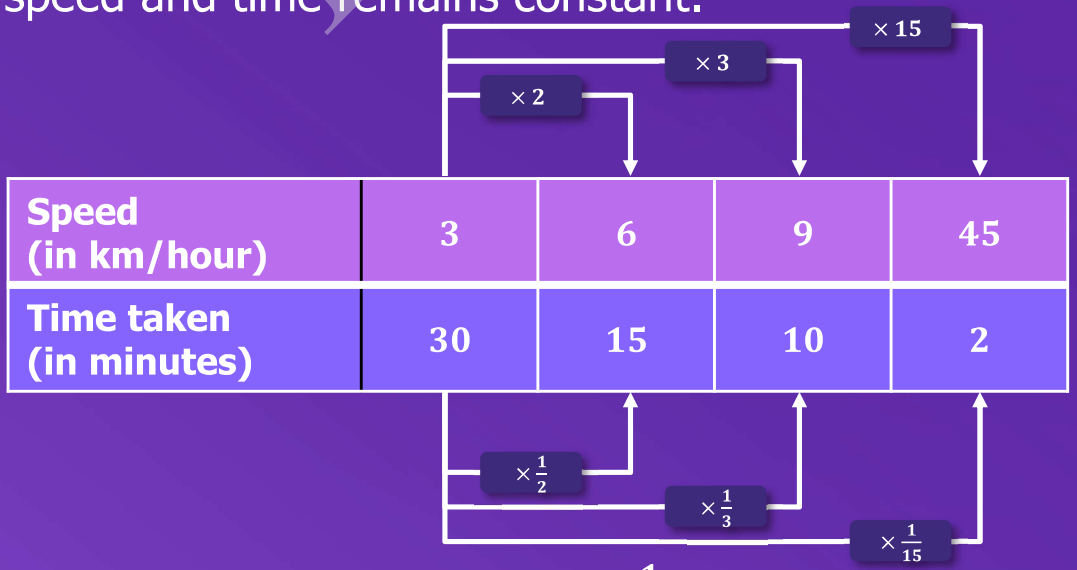
Two quantities, A and B, are said to be in inverse proportion if an increase in A causes a proportional decrease in B(and vice-versa) in such a manner that the product of their corresponding values remains constant.

Represented as $A \propto \frac{1}{B}$

$A \times B = c$, where c is the proportionality constant

Can also be written as $A_1B_1 = A_2B_2$

Example:
In the table below, time taken (in minutes) to cover a fixed distance reducing proportionally to the increase in speed (in km/hour) such that product of speed and time remains constant.



Speed $\propto \frac{1}{\text{Time taken}}$