

**Class 8**  
**Important Formulas**

**Chapter 11 - Direct and Inverse Proportion**

S.n	Term	Description
1	Direct Proportion	<p>Two quantities <math>x</math> and <math>y</math> are said to be in <b>direct proportion</b> if they increase (decrease) together in such a manner that the ratio of their corresponding values remains constant.</p> <p>That is if <math>x/y=k</math> [<math>k</math> is a positive number] = Constant</p> <p>Then <math>x</math> and <math>y</math> are said to vary directly. In such a case if <math>y_1, y_2</math> are the values of <math>y</math> corresponding to the values <math>x_1, x_2</math> of <math>x</math> respectively then</p> $\frac{x_1}{y_1} = \frac{x_2}{y_2}$
2	Inverse proportion	<p>Two quantities <math>x</math> and <math>y</math> are said to be in <b>inverse proportion</b> if an increase in <math>x</math> causes a proportional decrease in <math>y</math> (and vice-versa) in such a manner that the product of their corresponding values remains constant.</p> <p>That is, if <math>xy = k</math> = Constant</p> <p>Then <math>x</math> and <math>y</math> are said to vary inversely.</p> <p>In this case if <math>y_1, y_2</math> are the values of <math>y</math> corresponding to the values <math>x_1, x_2</math> of <math>x</math> respectively then <math>x_1 y_1 = x_2 y_2</math></p>