1. Cost Price, (c.p.) = The price, at which an article is purchased, is called its cost price.
2. Selling price ( $\mathbf{s} . \mathbf{p}$ ) = The price, at which an article is sold, is called its selling price.
3. Profit or Gain $=(S . P)-(C . P)$
4. Loss $=(\mathrm{C} . \mathrm{P})-(\mathrm{S} . \mathrm{P})$
5. Gain or Loss is always reckoned on C.P.

## Formulae

1. Gain\% $=($ Gain*100 $) /$ C.P
2. $\operatorname{Loss} \%=($ Loss $* 100) /$ C.P
3. $\mathrm{S} . \mathrm{P}=(100+$ Gain $\%) / 100 *(\mathrm{C} . \mathrm{P})$
4. $\mathrm{S} . \mathrm{P}=(100-$ Loss $\%) / 100$ * (C.P)
5. $\mathrm{C} . \mathrm{P}=100 /(100+\text { Gain } \%)^{*}(\mathrm{~S} . \mathrm{P})$
6. $\mathrm{C} . \mathrm{P}=100 /(100-\text { Loss } \%)^{*}(\mathrm{~S} . \mathrm{P})$

## Important cases

1. If an article is sold at a profit of say, $20 \%$, then $\mathrm{SP}=120 \%$ of CP .
2. If an article is sold at a loss of say, $20 \%$, then $\mathrm{SP}=80 \%$ of CP .
3. When a person sells two similar items, one at a gain of say $x \%$ and the other at a loss of say $x \%$. then the seller always incurs a loss given by:
$\operatorname{Loss} \%=(\mathrm{x} / 10)^{2}$
4. If a seller sells his goods at cost price but uses false weights, then

Gain \% $=[$ Error/(True value - Error) $* 100] \%$

## Solved Examples

Solved Examples
aptitude_profit_loss.htm

