Instructions for students: The notes provided must be copied to the Maths copy and then do the homework in the same copy.

Chapter 7

Percentage and its Applications

Part- 4

PROFIT AND LOSS

Cost price(C.P): The price at which an article is purchased.

Selling price (S.P): The price at which an article is sold.

Profit(Gain): If S.P > C.P there is profit.

Profit   =   S.P – C.P

Loss: If S.P < C.P there is loss.

Loss   =   C.P – S.P

Profit %   = $\left(\frac{profit}{C.P} \times 100\right)$%

Loss %   = $\left(\frac{Loss}{C.P} \times 100\right)$%

Exercise 7.3

4. Solution:

C.P of first almirah	=	₹4800		
Gain %	=	$13\frac{1}{3}$%		
Gain	=	$13\frac{1}{3}$% of ₹4800	=	$\frac{40}{3}$% of ₹4800
	=	$\frac{40}{3\times100}$ ×~~₹4800~~16	=	₹640
S.P of first almirah	=	C.P + Gain		
	=	₹4800 + ₹64	=	₹5440
C.P of second almirah	=	₹3640		
Loss %	=	15%		
Loss	=	15% of ₹3640		

	=	$\frac{15}{100} \times ₹3640$	=	$\frac{3}{2} \times ₹364 = ₹546$
S.P of second almirah	=	C.P – loss		
	=	₹3640 - ₹546	=	₹3094
Total C.P	=	₹4800 + ₹3640	=	₹8440
Total S.P	=	₹5440+₹3094	=	₹8534

Total S.P > Total C.P, $\therefore$ gain.

| **Gain** | **=** | **Total S.P - Total C.P** | | |
| | **=** | **₹8534 - ₹8440** | **=** | **₹94** |

14. Let the cost price be ₹x.

| S.P | = | ₹3168 | Loss% | = | 12% |

A/Q , ₹x - 12% of ₹x = ₹3168

$x - \frac{12}{100} \times x$	=	3168	
$\frac{88x}{100}$	=	3168	
x	=	$3168 \times \frac{100}{88}$	=	3600
C.P	**=**	**₹3600**	
New S.P	=	₹3870	
Gain	=	S.P – C.P	
	=	₹3870 - ₹3600	=	₹270
Gain %	**=**	$\frac{270}{3600} \times 100$	**=**	**7.5%**

Home work: Solve Exercise 7.3 in the Maths copy