Cosmo School

Class – 7

Chapter – 1

Rational and Irrational Number

Lecture sheet – 8

Word problem

Solution

1. Labours were employed to reap paddy from a paddy field. The daily wage of each labour is 10 times of their numbers. If the total daily wage is Tk. 6250, find the number of labours.

2. Find two such least consecutive numbers so that the difference of squares of them is a perfect square number.

Solution:

1. Let, the number of labour = x

1 labour daily wages = (10 × x) Taka = 10x Taka

∴ x " " " = (10x × x) Taka = $10x^2$

ATQ,

$10x^2 = 6250$

Or, $x^2 = 6250 \div 10$

Or, $x^2 = 625$

Or, $x = \sqrt{625}$

Or, x = 25

∴ The required number of labour = 25

Ans : 25.

2. Let,

1^{st} number = x

2^{nd} number = x+1

ATQ,

$(x+1)^2 - x^2 = x^2 + 2.\ x.\ 1 + 1^2 - x^2$ [$\because (a+b)^2 = a^2 + 2ab + b^2$]

$= x^2 + 2x + 1 - x^2$

$= 2x + 1$

$= 2.4 + 1$ [Let, x = 4]

$= 8 + 1$

$= 9$

$= (3)^2$

$\therefore$ 1^{st} number = 4

$\therefore$ 2^{nd} number = 4+1 = 5

Ans: 4 and 5.