

# NEW HORIZON ENG.MED.SCHOOL

## WORK SHEET

CLASS - X

SUBJECT – Mathematics

- History of Mathematics & Real Numbers

i. Match the following:

a) Bharti Krishnateertha	Brahmasphoot Siddhanta
b) Aaryabhata	Vedic Mathematics
c) Brahmagupta	Aaryabhataiya
d) Bhaskaracharya	Panch Siddhanta
e) Varahmihira	Siddhanta Shiromani

ii. Find the digit sum of the given no.

a) 2345	b) 7468
c) 77888654	d) 2130586

iii. Solve the following products using formula

Urdhwatirygbhyam, Eknyunenapoorvena, Nikhilam Sutra vidhi.

- a)  $44 \times 54$
- b)  $713 \times 564$

iv. Solve using Urdhwatiryak Vidhi and check the answers:

- a)  $x^2 + 2x + 16$   
 $\times x^2 + 3x + 8$
- b)  $x - 12y$   
 $\times x + 12y$

v. Find the square root of the following using Vilokanam Vidhi:

a) 6889

b) 3249

c) 7569

vi. Find the squares of the following by using formula:

$$(a + b)^2 = a^2 + b^2 + 2ab$$

$$(a - b)^2 = a^2 + b^2 - 2ab$$

& Ekaadhikena Poorvena method:

a)  $64^2$

b)  $98^2$

c)  $76^2$

vii. Find 5 rational no. between  $4/7$  &  $5/7$ .

viii. Change the following decimal numbers in p/q form.

a) 0.40

b) 8.36

c) 3.134

ix. Simplify :

a)  $\frac{5+\sqrt{3}}{3-\sqrt{3}} + \frac{3-\sqrt{3}}{2+\sqrt{3}}$

b)  $\frac{15+\sqrt{7}}{3-\sqrt{3}} + \frac{13-\sqrt{3}}{20+\sqrt{5}}$

x. a) Solve the product :

$$(\sqrt{3} + \sqrt{5}) \times ((\sqrt{2} + \sqrt{4}))$$

b) Find the sum of-

$$2\sqrt{3} + 5\sqrt{7} \text{ \& } 3\sqrt{7} - 5\sqrt{7}.$$

- Learn & Write table upto 20.