APPENDIX – B

PILOT STUDY VERSION OF THE ACHIEVEMENT TEST

NAME OF THE SCHOOL: _____

ROLL NO. _____ **DATE:** _____

ARITHMETIC
CHAPTER I – RATIONAL NUMEBRS

1 1 Write the reciprocals of.

a. -4, b. $\frac{3}{4}$ c $\frac{-6}{5}$

Ans. _____ Ans· _____ Ans. _____

1 2 Which is the greater to the two

a. $\frac{3}{4}$ or its reciprocal b. $\frac{-2}{3}$ or its reciprocal

Ans. _____ Ans _____

1.3 Write the following rational numbers in ascending order.

a. $\frac{4}{9}$ $\frac{5}{12}$ $\frac{7}{15}$ b. $\frac{-3}{8}$ $\frac{-3}{5}$ $\frac{-1}{2}$

Ans. _____ Ans· _____

1.4 Write in the standard form.

a. $\frac{-16}{56}$ b $\frac{-14}{42}$

Ans _____ Ans _____

1.5 Which of the following is a pair of equal rational numbers

a: $\frac{9}{13}$, $\frac{45}{65}$ b: $\frac{15}{45}$, $\frac{7}{21}$

Ans _____ Ans. _____

CHAPTER 2 – OPERATIONS ON Q

2 1 Add

a. $\frac{3}{7} + \frac{1}{7}$, b. $\frac{4}{9} + \frac{(-5)}{9}$ c. $\frac{3}{8} + \frac{(-5)}{12}$

Ans: _____ Ans _____ Ans: _____

d $\frac{6}{8} + \frac{4}{10}$

Ans: _____

e $\frac{1}{7} + \frac{1}{6} + \frac{2}{5} + \frac{1}{6} + \frac{1}{7}$

$= \left(\frac{\quad}{\quad} + \frac{1}{7}\right) + \left(\frac{\quad}{\quad} + \frac{\quad}{\quad}\right) +$

f. $\frac{2}{7} + \frac{3}{8} = \frac{3}{8} +$ _____

g. $\frac{5}{9} + 0 =$ _____ $0 +$ _____

h. $3\frac{2}{7} + 2\frac{2}{7}$

2 2 Subtract

a. $\frac{(-2)}{3} - \frac{1}{7} = -\frac{(-2)}{3} +$ _____ b $\frac{1}{4} - \frac{(-1)}{3} = \frac{1}{4} +$ ____

c. $2\frac{1}{5} - 1\frac{1}{4} =$ _____ d. $\frac{4}{9} - \frac{2}{9} + \frac{1}{9} =$ _____

2 3 Multiply

a. $\left(\frac{4}{-5}\right) \times \left(\frac{-3}{8}\right)$ b $\left(\frac{-5}{7}\right) \times \left(\frac{-1}{2}\right)$

Ans _____ Ans _____

c. $\left(\frac{-2}{9}\right) \times 0 =$ _____ d $\frac{2}{5} \times \frac{5}{7} \times \frac{7}{8} \times 4 =$ ____

e. $\frac{13}{17} \times (-1) =$ _____ x _____ =

2 4. Write the multiplicative inverse

a -4, b $\frac{3}{5}$

Ans: _____ Ans. _____

2 5 Simplify

a. $\frac{1}{3} \times \left(\frac{3}{7} + \frac{1}{3}\right)$ b. $\frac{1}{2} \times \left(\frac{3}{7} - \frac{1}{3}\right)$

Ans _____ Ans _____

2 6 Divide

a $\frac{3}{11} \div \frac{4}{7}$ b $\left(\frac{-9}{13}\right) \div \left(\frac{6}{-11}\right)$ c $\left(\frac{4}{3}\right) \div (-1)$

Ans _____ Ans _____ Ans· _____

d. $\frac{3}{8} \div \frac{3}{8}$ e $\left(\frac{2}{4} + \frac{3}{5}\right) \div \frac{7}{20}$

Ans _____ Ans _____

2.7 Find the decimal presentation of ·

a $\frac{2}{3}$ b $\frac{-7}{25}$ c $\frac{3}{4}$

Ans _____ Ans _____ Ans. _____

2.8 Convert the following in the form $\frac{p}{q}$

a. 0 25 b 0 35 c. 4.37

Ans _____ Ans _____ Ans. _____

GOOD GOING

CHAPTER 3 – EXPONENTS

3 1 Fill in the boxes

a. $7^3 \times 7^2 = 7^{\square}$

b. $\left(\frac{-3}{8}\right)^{\square} \times \left(\frac{-3}{8}\right)^{\square} = \left(\frac{-3}{8}\right)^{12}$

3 2 Simplify

a. $\left(\frac{4}{5}\right)^2 \times \left(\frac{4}{5}\right)^3$ b $4^6 \div 4^2$

Ans: _____ Ans. _____

c. $\left(\frac{2}{7}\right)^3 \div \left(\frac{2}{7}\right)^4$

Ans _____

3 3 Fill in the boxes

a $(4^2)^3 = (4)^{\square}$

b. $\left(\left(\frac{-2}{11}\right)^4\right)^3 = \left(\frac{-2}{11}\right)^{\square}$

c. $\left(\frac{4}{3}\right)^2 = \frac{4^2}{\square^{\square}}$

d. $\left(\left(\frac{-3}{11}\right) \times \left(\frac{-2}{7}\right)\right)^5 = \left(\frac{-3}{11}\right)^{\square} \left(\frac{\square}{\square}\right)^5$

2.8 Convert the following in the form $\frac{p}{q}$

a. 0.25 b. 0.35 c. 4.37

Ans: _____ Ans: _____ Ans: _____

GOOD GOING

CHAPTER 3 – EXPONENTS

3.1 Fill in the boxes:

a. $7^3 \times 7^2 = 7^{\square}$

b. $\left(\frac{-3}{8}\right)^{\square} \times \left(\frac{-3}{8}\right)^{\square} = \left(\frac{-3}{8}\right)^{12}$

3.2 Simplify

a. $\left(\frac{4}{5}\right)^2 \times \left(\frac{4}{5}\right)^3$ b. $4^6 \div 4^2$

Ans: _____ Ans: _____

c. $\left(\frac{2}{7}\right)^3 \div \left(\frac{2}{7}\right)^4$

Ans: _____

3.3 Fill in the boxes:

a. $(4^2)^3 = (4)^{\square}$

b. $\left[\left(\frac{-2}{11}\right)^4\right]^3 = \left(\frac{-2}{11}\right)^{\square}$

c. $\left(\frac{4}{3}\right)^2 = \frac{4^2}{\square^{\square}}$

d. $\left[\left(\frac{-3}{11}\right) \times \left(\frac{-2}{7}\right)\right]^5 = \left(\frac{-3}{11}\right)^{\square} \left(\frac{\square}{\square}\right)^5$

3.4 Simplify

a. $\left[(-2) \times \frac{4}{11}\right]$ b. $(4^2)^3$

Ans: _____ Ans: _____

3.5 Simplify

a. $\left(\frac{2}{3}\right)^{-5} = \frac{1}{\left(\frac{\square}{\square}\right)^{\square}}$ b. $\left(\frac{-4}{5}\right)^{-3} \quad \frac{1}{(\ )}$

c. $\left[\left(\frac{-4}{9}\right) \times \left(\frac{-5}{7}\right)\right]^{-2} =$ _____ x _____

d. $\left(\frac{4}{7}\right)^{-3} \div \left(\frac{4}{7}\right)^{-2}$ e. $\left[\left(\frac{-3}{5}\right)^{-2}\right]^{-4}$ f. $\frac{7^5 \times 7^6}{7^3}$

Ans: _____ Ans: _____ Ans: _____

g. $\left(\frac{2}{3}\right)^5 \times \left(\frac{2}{3}\right)^6 \div \left(\frac{2}{3}\right)^4$

Ans: _____

3.6 Write the following numbers in scientific notation:

a. 0.45 b. 51000000

Ans: _____ Ans: _____

CHAPTER 4 – VARIATION

4.1 Which of the following is direct variation and which is indirect variation:

a.

X	2	7	5
Y	4	14	10

b.

X	3	15	10
Y	20	4	6

Ans: _____

4.2 Solve

a. A man is working for 5 days for Rs. 400/-. How much he will be paid if he works for 8 days.

Ans: _____

b. 12 men takes 80 days to dig a well. How many days will 16 men require to complete the same work.

Ans: _____

CHAPTER 5 – PERCENTAGE : P AND L

2.1 If 120 is increased by 5%, then the new number = _____

2.2 Find the cost price (C.P.) if selling price (S.P.) is Rs. 141 and loss is 6%.

Ans: _____

2.3 Sohan saved Rs 630 which is 7% of his salary. What is his salary ?

Ans: _____

CHAPTER 6 – SIMPLE INTEREST

6.1 What amount lent out for 3% p.a. would give simple interest of Rs. 36/- after 3 years ?

Ans: _____

6.2 In how many years will the simple interest on a deposit of Rs. 1000/- at 8% p.a. be Rs. 200/- ?

Ans: _____

CHAPTER 7 – DISCOUNT

1.1 A readymade shirt was bought by a customer for Rs. 370/- when shopkeeper allowed a discount of 7.5% on the marked price. Find the marked price.

Ans: _____

ENJOYED ? KEEP IT UP ?

CHAPTER 9 – EXPANSION OF ALGEBRAIC EXPRESSIONS

8.1 Simplify

a. $2a^2 \times 3ab =$ _____ b. $\frac{7a^2b}{2} \times \frac{3ab^2}{7} =$ _____

8.2 Find the product of:

a. $(X + 3)\ (X - 2)$ b. $(3x + 3y)\ (2x - 6y)$

Ans: _____ Ans: _____

9.3 Expand: $(3x + 4y)^2$

Ans:_____

9 4 Evaluate: 105 x 95

Ans: _____

9.5 Expand: $\left(\frac{p}{4} - \frac{q}{5}\right)^2$

Ans: _____

9.6 Multiply

a. $(8x - 3)\,2x$

Ans: _____

b. $(-3x^2)(xy^2z - yz^2)$

Ans: _____

CHAPTER 10 – FACTORIZATION

10.1 $X^2 + 3XY - X - 3Y$

Ans: _____

10.2 $4a^2 + 20a + 25$

Ans: _____

10.3 $9X^2 - 64Y^2$

Ans: _____

10.4 $X^4 + X^2Y^2 + Y^4$

Ans: _____

10.5 $25x^4 + 9x^2 + 1$

Ans: _____

CHAPTER 11 – LINEAR EQUATIONS IN ONE VARIABLE

11.1 Solve

a. $2x - 7 = 5$

Ans: _____

b. $\frac{X+1}{3} = \frac{2X-1}{5}$

Ans: _____

c. $2(x + 5) = 5(x - 2)$

Ans: _____

10.2 A father is three times as old as his son. Fifteen years hence the fatehr will be as old as his son will be then. Find their present age.

Ans: _____

10.3 The tens place digit of a two digit number is three times the one's place digit. If 54 is subtracted from the given number, the result is a number with the digits of the original number in reversed. Find the number.

Ans: _____

YOU HAVE DONE IT !!!
THANK YOU VERY MUCH