

SA-1 Work Sheets

1. Large Numbers

Work Sheet – 1

1. Write the numerals for the following:

(a) ten crores, fifty lakh, ten thousand seventy four.

(b) 5 millions, Two hundred thousand seven hundred fifty nine.

2. Write the number name for the following:

(a) 572,601,456      (b) 25,85,96,012

3. Match the following:

(a)  $3000 + 900 + 60 + 5$

4107

(b)  $4000 + 100 + 7$

3965

(c)  $9000 + 900 + 90 + 9$

523

(d)  $500 + 20 + 3$

9999

4. Find the sum, difference, product and division of the following:

1.  $25544 \times 678$

2.  $620 \times 250$

3.  $7345689 + 25897912$

4.  $58945565 - 25647841$

5.  $2365875 \div 107$

6. An entrepreneur made a profit of Rs. 45698641 in the first year and

Rs. 2567894 more in the second year. Find the total profit made by him in

both the years.

**5. Estimate and solve to the nearest tens:**

(i)  $24 + 58$

(ii)  $88 - 29$

(iii)  $95 \div 9$

(iv)  $114 \div 14$

(v)  $4252 \div 247$

**6. Estimate the sum to the nearest hundreds.**

(i)  $166 + 427$

(ii)  $6043 + 2476$

(iii)  $11 \times 39$

**7. Estimate and solve to the nearest thousands:**

(i)  $5786 + 2126$

(ii)  $7123 - 3678$

(iii)  $240265 \div 2436$

**2. Natural Numbers and Whole Numbers**

**Work Sheet – 2**

**1. Match the column**

<b>Closure Property</b>	If a and b are any two whole numbers, then $a+b = b+a$ and $a \times b = b \times a$ .
<b>Commutative property</b>	If a and b are any two whole numbers, then a+b are also whole numbers.
<b>Associative property</b>	If a, b and c are any two whole numbers, then $a(b+c) = a \times b + a \times c$
<b>Distributive property</b>	If a, b and c are any two whole numbers, then $(a+b)+c = a+(b+c)$ and $(a \times b) \times c = a \times (b \times c)$ .

<b>Additive Identity</b>	If a is any whole number, then $a+0= a =0+a$ .
<b>Multiplicative Identity</b>	If a is any whole number, then $a\times 0= 0 =0\times a$
<b>Multiplication by zero</b>	If a is any whole number, then $a\times 1= a =1\times a$
<b>Division by zero</b>	If a is any whole number, then $a\div 0$ is not defined

## 2. Match the column

$191+13 = 13+191$	Associative Property of Multiplication.
$90+0 = 90$	Distributive Property of Multiplication over Addition.
$(78+1)+11= 78+(1+11)$	Commutative Property of Multiplication
$(121\times 4)\times 80 = 121\times(4\times 80)$	Distributive Property of Multiplication over Subtraction.
$12\times(10+85)=12\times 10+12\times 85$	Associative Property of Addition
$71\times(11-3)=71\times 11-71\times 3$	Additive Identity
$10\times 45=45\times 10$	Commutative Property of Addition.

### 3. Fill in the blanks

- (a) \_\_\_\_\_  $\times 13 = 13 \times 18$
- (b) Whole numbers are closed under \_\_\_\_\_ and \_\_\_\_\_ operation.
- (c) Division by \_\_\_\_\_ is not defined.
- (d) \_\_\_\_\_ is the identity for multiplication.
- (e) If \_\_\_\_\_ is added to a number, the sum will remain the same. Hence \_\_\_\_\_ is called the \_\_\_\_\_ in the whole numbers.

4. How many whole numbers are there between 12 and 86

5. Find the product using Distributive property

- (a)  $168 \times 102$
- (b)  $625 \times 279 - 625 \times 79$

### Work Sheet – 3

1. Write all integers between a) 0 and 6, b) -3 and 3
2. Using the number line, write the integer which is 6 less than 2?
3. Write 5 negative integers more than -7.
4. Add  $(-2056) + 679$
5. Represent the numbers in number line : -8, 23, 2, -17 and -63.
6. Find the sum of -57 and 70
7. Write absolute value of each of the following :
  - a) -300, b) -8, c) 120 d) 150
8. A car travelled 60 km to the north of Patna and then 90 km to the south from there. How far from Patna was the car finally?
9. The sum of two integers is -13. If one of the numbers is 170, find the other.
10. Subtract : -3012 from 6250
11. Multiply -238 by -143

12. Find the sum :  $(-3) + (-7)$  and using number line

13. Simplify :  $(-7) + 8 - (-25)$

14. Find the sum of:  $(-9) + (+4) + (-6) + (+3)$

15. If a and b are two integers such that a is the successor of b. Find the value  
Of a-b.

16. The largest negative integer is \_\_\_\_\_

#### 4. Sets

##### Work Sheet – 4

I.  $P = \{1, 2, 3, 4, 5, 6, 7\}$      $Q = \{a, e, i, o, u\}$      $R = \{10, 12, 14, 16, 18\}$

1.  $3 \in R$ , mark True / False.    2.  $e \in Q$ , mark True / False.    3.  $14 \in R$

4.  $5 \in R$     5.  $7 \notin P$ , mark True / False.

6. Write the below mentioned set in Roster form.

The set of prime numbers less than 15.

7. Write the below mentioned set in Roster form.

The set of multiples of 4 less than 25.

8. Rewrite the following set in Roster form.

$A = \{x \mid x \text{ is an even number greater than 10 and less than 20}\}$

9. Write the following set in the set builder form.

$P = \{a, e, i, o, u\}$

10. Write the following set in the set builder form.

$A = \{\text{January, March, May, July, August, October, December}\}$

11. Write the following set in the set builder form.

$R = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}$

12. The set of even prime number is a \_\_\_\_\_ set.
13. Define equal set and equivalent set and give an example.
14. The set of months having 28 days in a calendar year is a finite set. Mark True / False.
15. Set of whole numbers are known as \_\_\_\_\_ set.
16. Cardinal number of a singleton set is \_\_\_\_\_.
17. What is the cardinal number of below mentioned set?  
 $P = \{a, e, i, o, u\}$
18.  $Q = \{x \mid x \text{ is a month of the year}\}$ , find the cardinal of the set Q.
19. Cardinal number of an empty set is \_\_\_\_\_.
20. Cardinal number of an infinite set is \_\_\_\_\_.
21. Set of all natural numbers between 9 and 10 is known as \_\_\_\_\_ set.
22. Set of all odd numbers less than one lakh is known as \_\_\_\_\_ set.

## 5. Fractions

### Work Sheet – 5

1. Express the following as improper fractions:

i)  $5\frac{6}{4} =$  \_\_\_\_\_    ii)  $1\frac{2}{3} =$  \_\_\_\_\_    iii)  $9\frac{1}{7} =$  \_\_\_\_\_

2. Express the following as mixed fractions:

i)  $\frac{9}{2} =$  \_\_\_\_\_    ii)  $\frac{23}{4} =$  \_\_\_\_\_    iii)  $\frac{13}{7} =$  \_\_\_\_\_

3. Define types of fractions and give two examples for each type?

#### 4. Simplify the following:

### Adding like fractions

Add like fractions

$$3/8 + 4/8 =$$

Add fractions and mixed numbers

$$3/8 + 3\ 4/8 =$$

Add mixed numbers (like denominators)

$$4\ 3/8 + 3\ 4/8 =$$

Completing whole numbers

$$2\ 3/4 + \underline{\quad} = 5$$

### Adding unlike fractions

Add unlike fractions

$$2/5 + 2/3 =$$

Add fractions and mixed numbers

$$5\ 2/5 + 2/3 =$$

Add mixed numbers

$$5\ 2/5 + 4\ 2/3 =$$

### Subtracting like fractions

Subtract like fractions

$$5/7 - 3/7 =$$

Subtract a fraction from a whole number

$$6 - 3/7 =$$

Subtract a fraction from a mixed number

$$3\ 2/7 - 3/7 =$$

Subtract mixed numbers (same denominators)

$$3\ 2/7 - 1\ 3/7 =$$

Subtract mixed numbers (missing number)

$$3\ 2/7 - \underline{\quad} = 1\ 6/7$$

### Subtracting unlike fractions

Subtract unlike fractions

$$4/5 - 2/3 =$$

Subtract unlike fractions (harder)

$$17/25 - 2/3 =$$

Subtract mixed numbers (unlike denominators)

$$16\ 8/9 - 5\ 1/8 =$$

5. Simplify the following:

<b>Fraction multiplication</b>	
Fraction x whole numbers	$6 \times 1/12 =$
Fraction x whole numbers (missing factors)	$1/6 \times \underline{\quad} = 3$
Multiply fractions	$2/3 \times 3/5 =$
Multiply fractions (harder)	$7/20 \times 2/9 =$
Multiply fractions (missing factors)	$3/4 \times \underline{\quad} = 1/6$
Multiply improper fractions	$5/3 \times 3/2 =$
Mixed numbers x fractions	$2 \frac{7}{8} \times 1/2 =$
Multiply mixed numbers	$2 \frac{7}{8} \times 3 \frac{1}{2} =$
Mixed multiplication practice	$1 \frac{4}{5} \times 10 =$
<b>Fraction division</b>	
Divide whole numbers by a fractions	$3 \div 1/3 =$
Divide fractions by whole numbers	$3/4 \div 3 =$
Divide fractions by/into whole numbers	$4 \div 1/2 =$
Divide mixed numbers by fractions	$5 \frac{3}{4} \div 1/4 =$
Fraction divided by a fraction	$2/3 \div 1/6 =$
Dividing mixed numbers by fractions	$6 \frac{2}{3} \div 1/6 =$
Dividing mixed numbers	$6 \frac{2}{3} \div 1 \frac{1}{6} =$
Mixed division practice	$2 \frac{1}{3} \div 3 =$



6. Simplify the following:

### Adding decimals

Add decimals

$1.3 + 7.5 = \underline{\quad}$

Add decimals (missing addend)

$1.3 + \underline{\quad} = 8.8$

Add 2-digit decimals

$0.5 + 0.35 = \underline{\quad}$

Add 3-digit decimals

$0.52 + 0.315 = \underline{\quad}$

Add 2-digit decimals (missing addend)

$0.5 + \underline{\quad} = 0.85$

Add 2-digit decimals (missing addend, harder)

$\underline{\quad} + 2.74 = 4.14$

Add in columns

$$\begin{array}{r} 32.585 \\ + 90.26 \\ \hline \end{array}$$

### Subtracting decimals

Subtract decimals

$2.7 - 0.1 = \underline{\quad}$

Subtract decimals (missing numbers)

$6.5 - \underline{\quad} = 5.5$

Subtract 2-digit decimals

$\underline{\quad} - 1.49 = 5.61$

Subtract from a whole number

$2 - 0.25 = \underline{\quad}$

Subtract in columns

$$\begin{array}{r} 98.8 \\ - 7.2 \\ \hline \end{array}$$

### Money notation

Add & subtract with money notation

$$\begin{array}{r} \$98.80 \\ - \$ 7.20 \\ \hline \end{array}$$

7. Simplify the following:

<b>Decimals to Fractions</b>	
Decimals to fractions (10ths / 100ths)	0.68 =
Decimals to mixed numbers	2.72 =
<b>Fractions to Decimals</b>	
Fractions to decimals (denominator 10 or 100)	94/100 =
Mixed numbers to decimals (varied denominators)	6 $\frac{3}{5}$ =
Fraction to decimals (using division)	4/17 =
Fractions to/from decimals (mixed practice)	4 $\frac{10}{16}$ =

8. Write the place value of underlined digits of the following:

- i) 568.256    ii) 7897.017    iii) 2067.05    iv) 23.63

9. A vendor bought 12.5kg onions from the market in the morning and 8.25 kg in the afternoon. By the end of the day, he could sell 18.9 kg onions in his locality. Find the amount of onions left with the vendor.

10. Sheela brings 10 m cloth and uses 6.9 m out of it to stitch her dresses. Finally, she finds that only 1.2 m cloth was left with her, find the measurement of the cloth wasted during stitching.

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