|  |  | SnandNiketan <br> Maninagar Campus |  |
| :--- | :---: | :--- | :---: |
| Grade : VI | Subject : Mathematics | Section: |  |
| Name: | Practice Worksheet | Date: |  |
| Ch-1,2,3,4,5,9,10,14,17 | Empower-1 | Empower -1 - 80 marks <br> PT-1 (Written)- 10 marks <br> Subject Enrichment- 5 marks <br> Notebook Submission- 5 marks |  |

## Ch- 1 Knowing Numbers

## Q-1 Very Short Questions:-

1) Which digit of 45,678 has the highest place value? $\qquad$
2) 999 comes just before $\qquad$
3) One quintal = $\qquad$ kg
4) One tonne $=$ $\qquad$ kg
5) The smallest number that can be rounded off to 40 is $\qquad$
6) The difference between smallest 3 digit number and greatest 2 digit number is $\qquad$
7) 1 million $=$ $\qquad$ lakhs
8) 10 million $=$ $\qquad$ crores
9) Which digit of 34,978 has greatest face value ? $\qquad$
10) The smallest counting number is - $\qquad$

## Q-2 Short Questions:-

1) a) $X C+X X=$ $\qquad$
b) $\mathrm{LX}-\mathrm{XL}=$ $\qquad$
2) a) Write $9,42,05,879$ in words.
b) Write 7, 577, 666 in words.
3) a) Write Three crore twenty thousand one in numerical form.
b) Write Five million two hundred thousand one in numerical form.
4) a) CXCVII $\qquad$ XXIV (<,>,=)
b) Estimate the sum by rounding off to nearest 100
i) $234+456=$ $\qquad$
ii) $3456+789=$ $\qquad$

## Q-3 Long Questions:-

1. In an election the winning candidate registered $4,67,890$ votes and his nearest rival secured $2,35,678$ votes . By what margin did the winning candidate win the election?
2. Ridhiya multiplied $46,23,456$ by 896 instead of 886 . How much is her answer greater than the correct answer?

## 17 Symmetry

## Q-1 Very Short Question:-

Complete the following table:

| Shape | Figure | Number of lines of symmetry |
| :--- | :--- | :--- |
| Parallelogram |  |  |
| Rectangle |  |  |
| Trapezium |  |  |
| Rhombus |  |  |
| Pentagon |  |  |
| Hexagon |  |  |
| Scalene Triangle |  |  |
| Isosceles Triangle |  |  |
| Equilateral Triangle |  |  |
| Heptagon |  |  |
| Circle |  |  |

## Q-2 Answer the following questions:-

1) Number of lines of symmetry of letter ' $N$ ' is $\qquad$
2) A semicircle has two lines of symmetry. True / False
3) If a line is drawn dividing the figure into two identical parts , the line is called $\qquad$
4) Which of the digits from 0 to 9 have line of symmetry?
5)Write the names of quadrilaterals which have one line of symmetry.
5) Draw the line of symmetry in following figure:-


## Chapter - 9 Basic Geometrical Ideas

## Q-1 Very Short Questions:-

1) Two lines in a plane always intersect .True / False
2) A line is made up of only two lines. True / False
3) Polygons are made up of $\qquad$
4) Three or more points in a plane lie on the same line are called $\qquad$
5) Many Lines can pass through two points. True/ False
6) Through given points $\qquad$ lines can pass through.
7) Ray PQ is same as ray QP. True / False
8) By lines in geometry, we mean only straight lines. True / False
9) 

 is a $\qquad$ curve.
10) Top of the table is example of $\qquad$

## Q-2 Short Questions:-

1) From given figure
2) From given figure name all the line segments
O

T
a) Name all rays and their initial points
b) Lines
3) Mark any three points in a plane such that the points are collinear. How many line segments do they determine? Name them.
4) Explain with suitable reasons why it is not possible for a line to have a midpoint.
5) Give any three examples of line segment.

## Ch-2 Whole numbers

## Q-1Very short questions:-

1) $\qquad$ is the even prime number.
2) Smallest six digit number using digits $8,2,6,1,0$.(Repetition allowed)
3) $345+453=453+345$ shows $\qquad$ property.
4) Division by $\qquad$ is not defined.
5) $\qquad$ is the whole number which is not a natural number.

## Q-2 Do as directed

1) $1 X 8+1=9$
$12 \times 8+2=98$
$123 \times 8+3=987$ Write next three steps.
2) What must be multiplied with 493 to get 104516 ?
3) Determine product by suitable arrangement
a) $4 \times 2396 \times 5$
b) 5462 X 25 X 4
4) Find the least 6 digit number divisible by 83 .
5) What must be added to 135642 to get the sum as the greatest number of six digits?
6) Divide 16135 by 875 and recheck using division algorithm.

## Q-3 Solve it :-

1) An NGO plans a housing scheme for people .If making one house would cost $₹ 123400$, what will be the cost of making 40 such houses? What is an NGO and how does it helps our society? (Use distributive property)
2) Find the value of $7998 \times 56+7998 \times 35+9 \times 7998$
3) $2035 \times 15000$
4) Divide 86228364 by 2768 and check the answer.
5) Divide 537809 by 35 and find the quotient and remainder.
6) On dividing 55390 by 299 the remainder is 75 . Find quotient using division algorithm.

## Ch-4 Integers

## Q-1 Fill in the blanks:

(i) An integer, on the given number line, is $\qquad$ than every number on its left.
(ii) An integer, on the given number line, is greater than every number on its $\qquad$ .
(iii) 4 is greater than -4 implies 4 is on the $\qquad$ of -4 .
(iv) -5 is $\qquad$ than 3 and 7 is $\qquad$ than -5.
(v) -6 is $\qquad$ than -10 and 3 is $\qquad$ than 9.
(vi) 8 is $\qquad$ than 0 and -6 is $\qquad$ than -1.
(vii) -7 is $\qquad$ than 6 and opposite of -4 is $\qquad$ than opposite of -9 .
(viii) -12 is $\qquad$ than -8 and -10 is $\qquad$ than opposite of 5 .
(ix) If +15 represents gain of $\$ 15$; then +45 represents $\qquad$ ; and -75 represents $\qquad$ .
(x) If 30 m below sea level is represented by -30 ; then -95 represents $\qquad$ ; and +450 represents
$\qquad$ _.
(xi) If fall in temperature by $15^{\circ} \mathrm{C}$ is denoted by +15 , then -115 denotes $\qquad$ ; and +47 denotes
$\qquad$ —.
(xii) Absolute value of +24 is $\qquad$ and absolute value of -35 is $\qquad$ .
(xiii) $|-11|=$ $\qquad$ , $|+11|=$ $\qquad$ and $-|-11|=$ $\qquad$ .
(xiv) If absolute value of a number = the number itself; then the number is $\qquad$ or $\qquad$ (xv) The opposite of +46 is $\qquad$ and that of -88 is $\qquad$

## Q-2 Find the integer, using the number line, which is:

(i) 5 more than 3
(ii) 9 less than 4
(iii) 12 more than -4
(iv) 8 less than 3
(v) 7 less than 0
(vi) 4 less than -6

Q-3State whether the statements are true or false:
(i) The smallest integer is 0 .
(ii) The opposite of - 17 is 17
(iii) The opposite of zero is zero.
(iv) Every negative integer is smaller than 0 .
(v) 0 is greater than every positive integer.
(vi) Since, zero is neither negative nor positive; it is not an integer.

Q-4 In each of the following pairs, state which integer is greater:
(i) $-5,-7$
(v) $27,-315$
(ii) $-7,5$
(vi) $-37,-25$
(iii) 0,8
(vii) $-15,0$
(iv) $0,-3$
(viii) $-1,-53$

Q-5 Fill in the blanks by < or > to make the statement true:
(i) 3 $\qquad$ 0
(v) 5 $\qquad$ $-1$
(ii) 0 $\qquad$ $-8$
(vi) -13 $\qquad$ 0
(iii) -9 $\qquad$ -3
(vii) -8 $\qquad$ $-18$
(iv) -3 $\qquad$ 3
(viii) 516 $\qquad$ -316

Q-6In each case, arrange the given integers in descending order:
(i) $-5,-3,8,15,0,-2$
(ii) $12,23,-11,0,7,6$
(iii) $-1,-21,-31,12,5,11$
(iv) $56,-35,98,-53,4,0$

Q-7 Add the following integers:(i) +84 and +45
(ii) - 63 and -23 (iii) -44 and +35

$$
\text { (iv) }+12 \text { and }-20 \quad(\mathrm{v})+2245 \text { and }-1013
$$

## Q-1 Fill in the blanks:

(i) Even numbers are the multiples of $\qquad$ .
(ii) 24 is an even number but 29 is an $\qquad$ number.
(iii) $\qquad$ is neither prime nor composite number.
(iv) $\qquad$ is the only even prime number.
(v) The smallest prime number is $\qquad$ .
(vi) The smallest odd composite number is $\qquad$ .
(vii) There are $\qquad$ prime numbers between 1 and 15 .

## Q- 2 Solve the following

1. The product of the L.C.M. and H.C.F. of two numbers is 80 . If one of the numbers is 20 , find the other number.
2. Find the lowest number which is less by 9 to be divided by 21,35 and 49 exactly.
3. The product of two numbers is 192. If the H.C.F. of the numbers is 4, find their L.C.M.
4. The H.C.F. two numbers is 6 and their L.C.M. is 36 . If one of the numbers is 18 , find the other number.
5. The product of the H.C.F. and L.C.M. of two numbers is 1050 . Find the product of numbers.
6. The product of two numbers is 144 . If the L.C.M. of these numbers is 12 , find their H.C.F.
7. The product of two numbers is 169 . If the L.C.M. of these numbers is 13 , find their H.C.F.

Q-3 Find the H.C.F. by long division method:
(i) 84,144
(ii) 120,168
(iii) $430,516,817$
(iv) 632, 790, 869
(v) $291,582,776$

Q-4 Find highest common factor of the following by primefactorization:
(i) $48,56,72$
(ii) 198,360
(iii) $102,68,136$
(iv) 1024,576
(v) $405,783,513$

Q-5 Find the L.C.M. of the following by finding common prime factors.
(i) $60,75,120$
(ii) $48,80,112$
(iii) $18,54,72$
(iv) $10,15,25$
(v) $20,35,45$
(vi) $16,24,48$

Q-6 Find the L.C.M. by division method.
(i) $70,110,150$
(ii) $25,30,150$
(iii) $36,60,120$
(iv) $30,150,300$
(v) $25,45,105$
(vi) $21,49,63$

## Ch-14 Understanding three dimensional shapes

1. Draw following figures and write down the number of faces, edges and vertices of each of the following figures:
(i) Cuboid
(ii) Cube
(iii) Triangular prism
(iv) Square pyramid
(v) Tetrahedron

## 2. Fill in the blanks:

(i) A cube has $\qquad$ vertices, $\qquad$ edges and $\qquad$ faces.
(ii) The point at which three faces of a figure meet is known as its $\qquad$
(iii) A cuboid is also known as a rectangular $\qquad$
(iv) A triangular pyramid is called a $\qquad$
3. The diameter of a sphere is 15 cm . What is the radius?
4.The radius of a sphere is 6.2 cm . Find its diameter?
5.Draw a tetrahedron and label it.
6. Complete the following table:

| Solid Figure | No. of faces | No. of edges | No. of Vertices |
| :--- | :--- | :--- | :--- |
| Square Pyramid |  |  |  |
| Cone |  |  |  |
| Sphere |  |  |  |
| Cylinder |  |  |  |
| Cuboid |  |  |  |
| Tetrahedron |  |  |  |
| Triangular Prism |  |  |  |

## Ch- 10 Angles

1. Classify the following angles:
(i) $35^{\circ}$
(ii) $185^{\circ}$
(iii) $90^{\circ}$
(iv) $92^{\circ}$
(v) $260^{\circ}$
2.Use your protractor to draw these angles:
(i) $40^{\circ}$
(ii) $125^{\circ}$
(iii) $25^{\circ}$
(iv) $175^{\circ}$
(v) $120^{\circ}$
3.What fraction of complete angle is an angle of measure $175^{\circ}$ ?
2. How many degrees are there in the the angle between the hour hand and the minute hand of a clock, when it indicates $9 \mathrm{o}^{\prime}$ clock?
3. Where will the hour hand of a clock stop if it starts at 2 and makes half of a revolution, clockwise?
6.Find in degrees, the size of an angle equal to $3 / 8$ of the revolution.
7.Find the value of $x$ in following figures:
i)

ii)


## Ch-5 Fractions

Q-1 Fill in the blanks:
(i) $3 / 4=$ $\qquad$ ./16
ii) $5 / 7=10 / \ldots \ldots$.
iii) $49 / \ldots .={ }^{7} / 1_{1}$ iv) . $\qquad$ $.63=2 / 9 v)$. $\qquad$ $. / 14=2 / 7$

Q-2 Add:
(a) ${ }^{7} / 10+2 / 15$
(b) $6 / 8+{ }^{4} / 10$
(c) $5 / 8+2 / 16+1 / 12$
(d) $8 / 11+2 / 3$
(e) ${ }^{4} / 9+7 / 9$
(f) $2 / 27+{ }^{5} / 9+{ }^{2} / 3$

Q-3 Find the difference. Remember to show the answer in the simplest form:
(a) $4^{2 / 3}-31 / 4$
(b) $77 / 28-62 / 35$
(c) $8 / 12-4 / 12$
(d) $26 / 10^{-1} \frac{1}{15}$
(e) $12 / 13^{-9} / 13$
(f) $5 / 7-2 / 4$

Q-3 Simplify the following:
(a) $17 / 24+2^{5} / 12+13^{1 / 3}-21 / 6$
(b) $7 / 5-1 / 10+2 / 3$
(c) $3-1 / 8+3 \frac{1}{4}$
(d) $5 / 6+3 / 4-1 / 2$

Q-4 Arrange in ascending order:
(a) $\frac{2}{15}, \frac{5}{30}, \frac{7}{6}, \frac{8}{5}$
(b) $\frac{2}{3}, \frac{2}{5}, \frac{7}{15}, \frac{1}{3}$

Q-5 Solve the following:

1. Sam bought $21 / 2 \mathrm{~kg}$ of sugar from one shop and $62 / 3 \mathrm{~kg}$ of sugar from the other shop. How much sugar did he buy in all?
2. Mary gave $1 / 8$ part of her money to Shelly. What fraction of money is left with her?
3. Ron walked $33 / 4 \mathrm{~km}$ on Monday, $41 / 3 \mathrm{~km}$ on Tuesday and $27 / 12 \mathrm{~km}$ on Wednesday. What distance did he walk in all?
4. Jack jumped $41 / 7 \mathrm{~m}$ in a long jump competition. Shane jumped $32 / 9 \mathrm{~m}$. Who jumped longer and by how many metres?
