JAFFNA HINDU COLLEGE

Risk Holiday Self - Education Worksheet - 2020

Grade - 07 | Mathematics
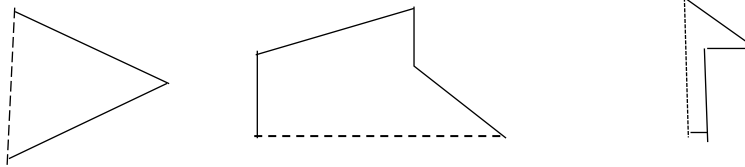
Name/Index No : …………………   Mr.V.Puvanesan, B.Sc (Mathematics)
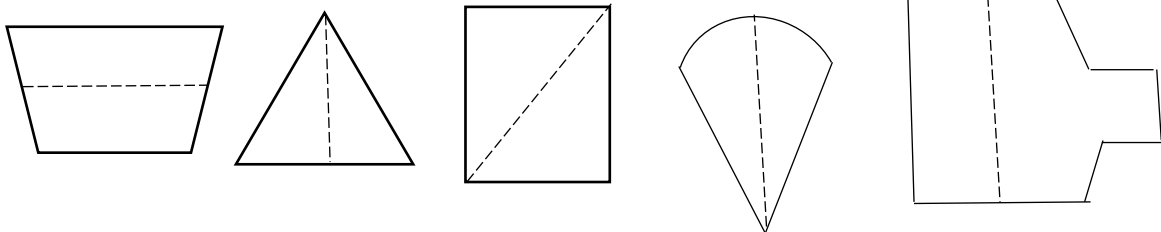
Unit – Billateral symmetry

01)
- a) What do you mean by billaterally symmetric figure.
- b) Complete the figures so that you obtain a bilaterally symmetric figure

02) Underline the bilaterally symmetric figures with correctly drown aixs of symmety.

03) Draw the following figures and their symmetric.
- a. a rectilinear plane figure with a symmetric axis.
- b. a rectilinear plane figure with two symmetric axes.
- c. two rectitinear plane figure with more than two symmetric axes.

04)
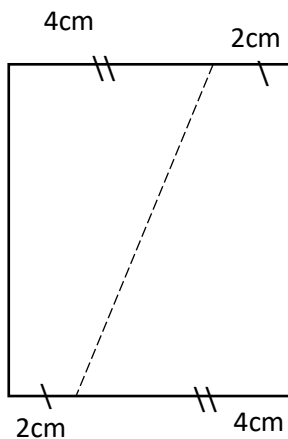
When we cut the figure along the dotted line., the two parts will coincide. Is this a bilaterally symmetric? Give reason for your answer.

Unit 02 - Sets

01)
   a) What is set?
   b) How can called the items belongs to the set?

02) Underline the correct method of representing seb in the following.
      a. {9 1 13}   c. {1 , a , b , 3 }
      b. {ம, க, ர, க, ம}   d. {1, 2, 3, 4,….. }

03)
   a. A = { multiples of # between 7 and 19 }
            1.   Write the set A as listing of elementt within the curly brackets.
            2.   Represent the set A by a venndiagram.

   b. Write down the set B in terms of a common property of its elements by which
      the elements canbe clearly identified.
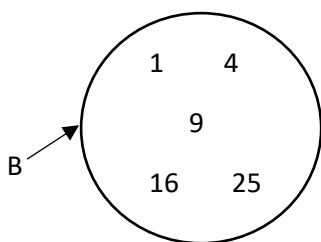
04)

Statement	set	not a set
I. colours of rainbow	✓	
II. multiples of 5 between O and 50		
III. Tall students in the classroom		
IV. clever students in the classroom		
V. Houses in the school		
VI. students in a classroom		

Unit 03 – Operations on ehole numbers.

01) Simplify

    I. $15 + 10 + 8$ II. $8 \times 6 \times 10$
    III. $10 - 3 - 2$ IV. $36 \div 6 \div 3$

02) Simplify

    I. $12 + 4 \times 2$ II. $12 \times 4 + 2$
    III. $12 - 4 \times 2$ IV. $12 \div 4 - 2$

03) Simplify

    I. $50 + 40 (14-4)$ II. $10 + 8 (12-2) \times 6 \div 3$
    III. $20 + (16 \div 4 - 2)$ IV. $4 + 6 \times (20+7) \div 3 - 40$

Unit 04 – Factors and Multiples

01)

Number	Divisible by 2	Digital Index	Dinisibleby	Divisible by 9
81	X	9	✓	X
102				
951				
189				
372				
466				
1029				
606				
432				
24				
144				

02)
   a. What is the H.C.F of prime numbers?
   b. If the number 5 3 ☐ 6 is divisible by 4 and 6. Find the suitable digit for the box.

03)
   a. write 6, 12, 18 as a product of prime factors.
   b. Find the HCF of 6,12 and 18.
   c. Find the LCM of 6,12 and 18.

04)
   a. Two bells ring at intervals of 4 minutes and 6 minutes respectively. If they both ring together at 8.00 a.m, at what time will they ring together again.

b. There are 30 soaps, 24 toothpastes and 12 brushes. If these items to be packed into bags such that there is an equal number of soaps. an equal number of thooth pastes and an equal number of brushes in every bag. and no items remain. what is the maximan number of such bags that can be prepared?

Unit 05 - Indices

01)
   a. write using index notation 7 x 7 x 3 x 3 x 3
   b. Expand and find the value of $2^3 \times 3^2$

02)
   a. Write 40 in index from with prime numbers as bases.
   b. Write 64 in index notation with 4 as the bases.

03) If $X = 2$, $Y = 1$, find the values of $5^2 X^2 Y$.

Unit 06 - Time

01) AD 1892
   a. Is a leapyear? Give reason.
   b. Which decade?
   c. which centuary?
   d. which millennium?

02) Simpify

a.

Y	M	D
3	6	19
+ 2	8	20

b.

Y	M	D
6	8	12
-4	8	20

03)
   a. Give 295 days in months and days?
   b. If the 5th birthday of kamal is 2004-08-24, find his birth date.

Unit 07 – Parallel Lines

01)
   I. Draw a straighline segment PQ = 6.8 cm.
   II. Draw a straight line passing through P and pepedicular to PQ using setsquare.
   III. Mark the point 3 in the straight line in (ii) such that PS = 6cm.
   IV. Draw a straight line passing through S parallel to PQ using a ruler and a setsquare.
   V. Mark the point R on the parallel line drown above such that SR=4cm and join QR.
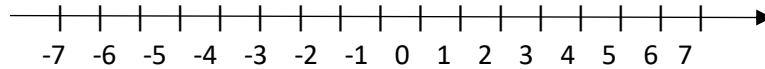
Unit 08 – Directed Numbers

01) Add using Number line.
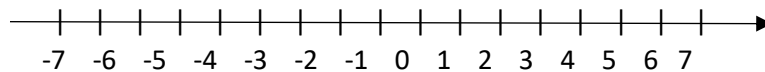
    I. $(-6) + (+4)$
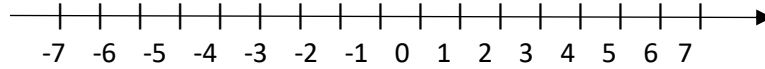
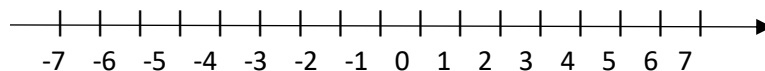
    II. $(-5) + (-1)$

    III. $(-5) + (+5)$

    IV. $(+4) + (-2)$

02) Simplify

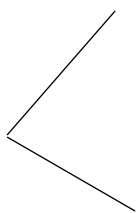   I. $(+4) + (-10)$ IV. $(-9) + (+5)$

    II. $(-1) + (-5)$ V. $\left(+\frac{1}{2}\right) + \left(\frac{1}{2}\right)$

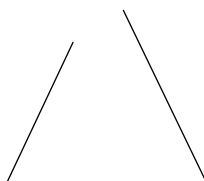   III. $\left(\frac{-2}{7}\right) + \left(\frac{-4}{7}\right)$ VI. $(-1.76) + (+0.34)$
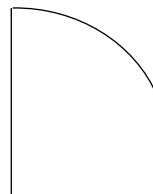
Unit 09 - Angles

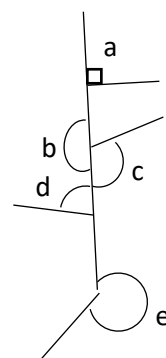01) Select and underline the angles.

(a)   (b)   (c)   (d)

02) a.

Angle	Type of angle
a	
b	
c	
d	
e	

b.
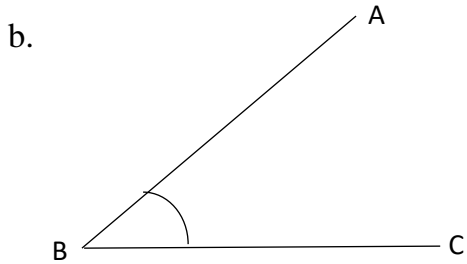
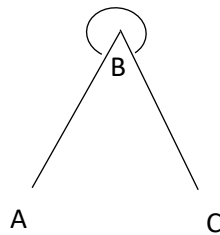| Name of angle	....
Arms	............,..........
Vertex	....

03)

    a. Whar is the standard unit of measuring angles?
    b. Give two examples of angle which is static in nature.
    c. Give two examples of angle which is dynamic in nature.
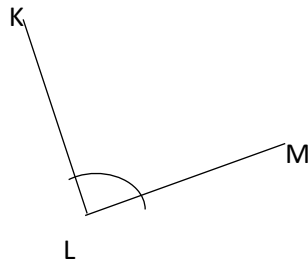
04)

    a. Construct the following angles using the protector.
        i. $A\hat{O}C = 65^0$
        ii. $X\hat{Y}Z = 125^0$
        iii. $N\hat{L}M = 280^0$
    b. Measure and write down the magritude of the following angles.

        i. $A\hat{B}C =$

        ii. $K\hat{L}M =$

05) Complete the puzzelbox given below show the methods of the informations from a to J

If the answer is 15 Put $\boxed{1}\boxed{5}$

→ From left to right

a) Strating Year (First) of 182nd decade.
b) Even Prime number.
c) Value of 8^2
d) Value of 8.9 + 2.1
e) $250 \div 5 \div 5$
g) 3 years in days
h) LCM of 8,6,16
i) Value of $3^2 \times (10^3 + 9)$

↓ Up to down

a) Not a leapyear of the follwing 2016, 1900.
b) Answer of 251 x 2 is upside down
d) Value od $2^4 \times 3^2$
e) First leap year comes next to the year 1886
f) If a=3, b=5, value of $10a^2b$
h) Smallest multiple of 3 greater than 400
i) Largest two digit number.
j) HCF of 2,3.

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