yasodaradevibalikamahavidyalayayasodaradevibalikamahavidyalayaysdaradevibalikamahavidyalayayas
odar...so
dara...ra
devi...ev
ibali...pa
likamahavidyalayayasodaradevibalikaanavidyalayayasodaradevibalikamanavidyalayayasodaradevibalik
amahavidyalay...vibalikam
ahavidyalayayasodaradevibalikamahavidyalayayasodaradevibalikamahavidyalayayasodaradevibalikama
havidyalayayasodaradevibalikamahavidyalayayasodaradevibalikamaidyalayayasodaradevibalikaahavidy
alaya...havidyalayayasodaradevibalikaahavidya
laya...idyalayayasod...a
yayasodaradevibalikamahavidyalayayasodaradevibalikamavidyalayaayasodaradevibalikamahavidyalaya

YASODARA DEVI BALIKA MAHA VIDYALAYA
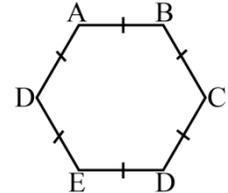
1st Term Test 2020 - Grade 7

Mathematics   E   I

2 Hours

Name : …………………………………………………………………………………………..

01. How many axes of symmetry are there in the Hexagon given in the figure.

02. Find the value of $1^3 \times 2^3$

03. (i) Find the digital index of the number 4506

   (ii) Write whether the number 4506 is divisible by 6 or not.

04. From the following expressions underline those which represent sets.
   (i)   Odd numbers from 1 to 10   (iii) Long rivers in the world
   (ii) Tall students in the class   (iv) Districts in Sri Lanka

05. Write all multiples of 12 between 40 and 80

06. (i) To which decade does AD 2021 belong?

   (ii) To which millennium does AD 2021 belong?

07. Write all the factors of 30

08. If the price of the book is Rs. 45, find the number of books that can be brought for Rs. 200.
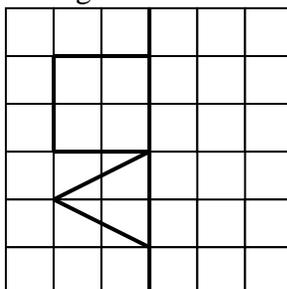
09. Simplify $\frac{5}{6} - \frac{2}{3}$

10. When $a = 2$, find the value of $3a - 5$

11. Write 3 hours 25 minutes in minutes

12. From the following select and underline the numbers which are divisible by 4

$$494 \ , \ 200 \ , \ 8032$$

13. Following is a part of a symmetric figure which was drawn on the square grid. Complete the other part of it.
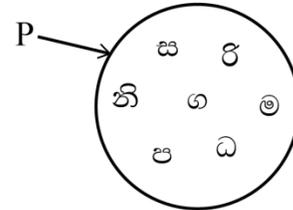
14. Simplify $(20 + 7) \div 9$

15. Name the base and the index of 5^4

      base   …………………….

      index   …………………..

16. Express set P by writing the elements of P.

17. Write 12.43 pm international standard form.

18. Simplify $7.5 - 2.6$

19. Find the smallest number which are divisible by 2 , 3 , 4 and 5

20. If the number 534☐ is divisible by 9 without a remainder, write a suitable digit for the blank space.

Part II

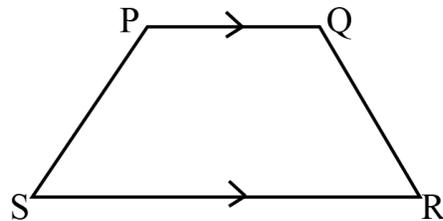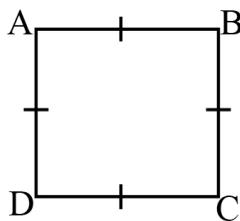- Answer the first question and select another 4 questions only.

01. (a) Answer the following question related to the activities in the lesson "Parallel Straight lines" that you have done in the class room.
    (i)   Name two instances in the environment where parallel lines can be observed.
    (ii)   Name two instruments that you have used to draw parallel lines.

    (b)
    (i)   Draw a straight line segment of length 5cm
    (ii)   Name above straight line segment as AB
    (iii)   Mark a point P which does not lie o the straight line segment.
    (iv)   Draw a straight line passing through P parallel to AB.
    (v)   Find the gap between the two straight lines.

    (c) Draw each of the following figures using straight edge and a set square.

02. (a)
    (i)   Fill in the blanks

$$\square \times 36$$
$$\square \times 18$$
$$3 \times \square$$
$$\square \times 9$$
$$6 \times \square$$

    (ii)   Accordingly write down all the factors of 36
    (iii)   Separate and write down the prime factors of 36

    (b)
    (i)   Write down 12 and 30 as a product of its prime factors
    (ii)   Accordingly, find the highest common factor of 12 and 30
    (iii)   Accordingly, find the least common multiple of 12 and 30

03. (a) A person puts a minimum of 10 rupees in a till every day. Find the least amount of money he would collect during each time period below.
    (i)   1 month
    (ii)   A leap year

(b)

    (i)   Write the first date and the last date of the 22nd centaury

    (ii)   a)   To which decade does AD 1796 belong?

               b)   To which century does AD 1796 belong?

               c)   To which millennium does AD 1796 belong?

    (iii)   How many days are there in February 2100 AD ?

04. (a)

    (i)   Write how 8^5 is read

    (ii)   Write 81

               a) as a power of 3

               b) as a power of 9

    (iii)   Write 72 as a product of powers with prime numbers as bases.

(b) Write down the following expressions using index notation

    (i) $a \times b \times a \times b$ (ii) $7 \times 7 \times 7 \times x \times x$

(c) Find the value of each of the following expressions by substituting $m = 5$.

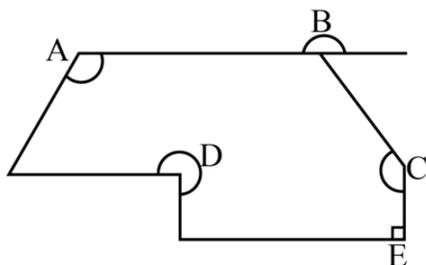   (i) m^3 (ii) $2m^2$

05. (a)

> 1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10

    (i)   Separate the numbers given in the above box into two sets, according to a common property of its elements.

    (ii)   Write the two sets by specifying the common property of its elements.

(b) A = {Multiples of 5 between 100 and 120}

    (i)   Write down the set A by listing its elements

    (ii)   How many elements are there in set A ?
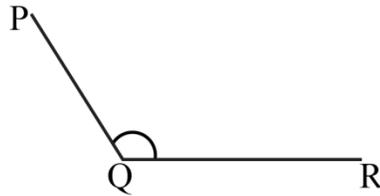
    (iii)   Represent the set A by a Venn diagram.

06. (a) Write the type of the angle represented by each digit of the diagram given below.

A - ....

B - ....

C - ....

D - ....

E - ....

(b)
    (i)   Name standard unit and the instrument used to measure angles
    (ii)   Using the above mentioned instrument draw and name the angle with the magnitude 75°. ($A\widehat{B}C = 75°$)
    (iii)   Write down an example for a dynamic angle and a static angle, which can be seen in our environment.

(c)

Write the answers using the above figure.
    (i)   Arms   -
    (ii)   Vertex   -
    (iii)   Name of the angle   -
    (iv)   Type of the angle   -

07. (a) Find the sum of the following using the number line.
$$(-4) + (+1)$$

(b) Simplify
    (i) $\left(-\frac{5}{9}\right) + \left(-\frac{2}{9}\right)$ (ii) $(-7) + (+3)$
    (iii) $(-5.81) + (-2.21)$ (iv) $(-4) + 0$

(c)
    (i)   A child went to school for 1 year 2 months 10 days by van and 3 years 9 months and 24 days by train. Find the total time he traveled by the bus and the train.
    (ii)   A tree which grows at a uniform speed, grow 2cm per day. Write the height of this tree after a year,
         a) in cm
         b) in m