



Zonal Education Office, Vadamaradchy
SECOND TERM EXAMINATION-2019

Grade - 08

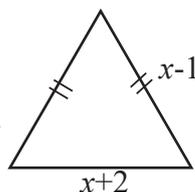
MATHEMATICS

Time : 2.30 hrs.

Index No.:

Marks :

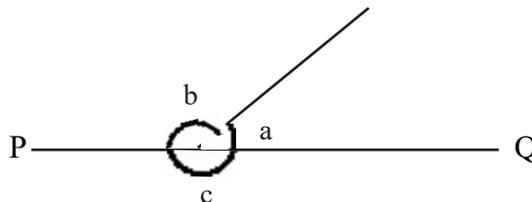
- 1) How many axis of symmetry are there in an equilateral triangle.
- 2) Write down the century to which the day of 2019.07.20 belongs.
- 3) If 900ml of water is used from 2l 750ml. Find the remaining amount of water in ml.
- 4) Write the next two terms of the number pattern 3 , 1 , -1 , -3, -5 , ,.....
- 5) Simplify $4x + 3 - 2x - 6$



- 6) Find the perimeter of this triangle.

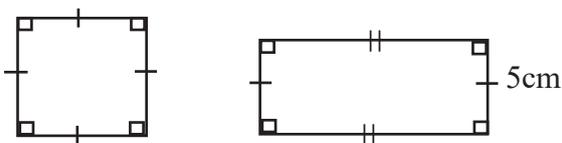
- 7) The mass of the lorry is 62.58t. If 8t flour is loaded into the lorry. Find the total mass.
- 8) If 375 students are boys out of 500 students in a school. Find the percentage of girls.
- 9) PQ is a straight line If $a = 70^\circ$

Find the magnitude of b and c.



- 10) Write 0.125 as fraction and simplest form
- 11) Remove the brackets and simplify. $3(2a+b) - 2(2a- b)$
- 12) If 4 students are represented by the symbol \bullet Indicate 18 students in the picture graph.
- 13) Find the value of $48 \div 0.8$
- 14) Write the two platonic solids which has a triangular faces.

- 15)



area of square is 64cm^2

Area of rectangle is 60cm^2

Write the difference between the length of the above figures.

16) Find the value of $8 - (-2) + 3$

17) Factorise $c(a - b) - d(a - b)$

18) Solve : $3a - 1 = 5$

19) Fill in the cage.

$$2 : 5 = \square : 15$$

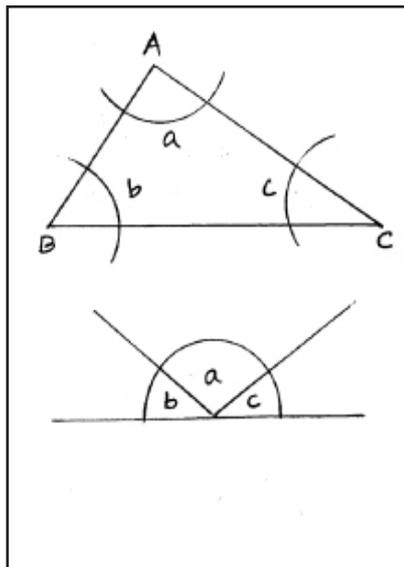
20) Find the value of $\sqrt{9 \times 8 \times 3 \times 3}$

(20x2=40 marks)

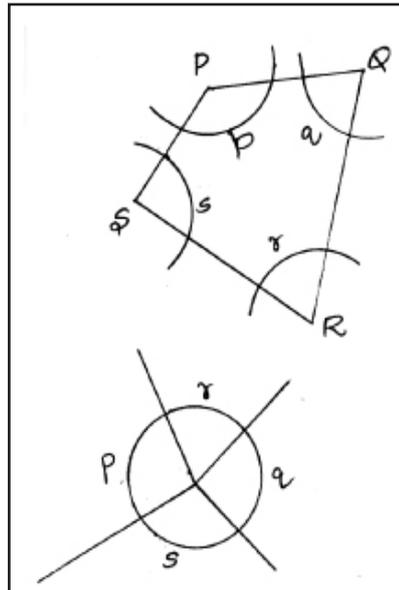
PART - II

Answer the first question and any other four questions.

1)



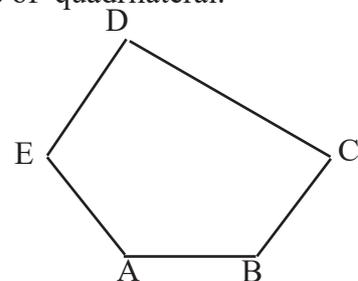
Activity I



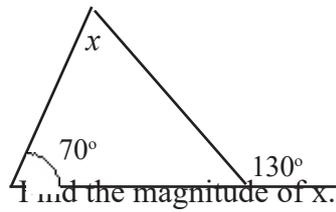
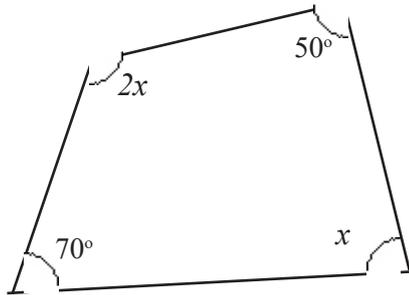
Activity II

The above activities I , II are done by angles of triangle and quaderilateral.

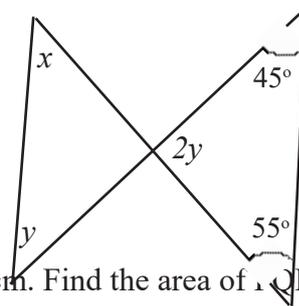
- From the activity I , which is the sum of the interior angles of triangle.
- From the activity II which is the sum of the interior angle of quaderilateral.
- Find the sum of interior angle of a pentagon ABCDE from the conclusion of question (I) by connect the vertices C , D with A.
- a) Find the magnitude of x.



b)



c) Find the magnitude of x and y



v) PQRS is a regular polygon. If $PQ = 10\text{cm}$. Find the area of $\triangle PQR$.

(2+2+3+6+3)

2) a) i) Write the general terms of the number pattern is 5 , 8, 11, 14 ,

ii) Which is the 20th term.

b) Simplify

i) 1.43×5.2

ii) $76.85 \div 10$

iii) $76.85 \div 100$

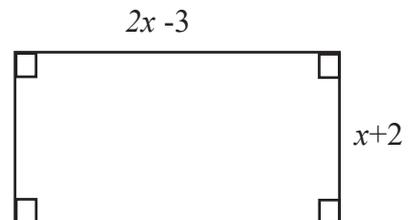
iv) If A packet of toothpaste weight is 70.6g. Find the weight of 12 such packets.

(2+2+2+1+2+2)

3) a) Solve : $4 + \frac{x}{5} = 7$

b) i) Find the perimeter of this rectangle in the terms of x

ii) If the perimeter of rectangle is 40cm. Find the value of x and then find the length and breadth.



c) $A = \{ \text{Prime numbers less than 10} \}$

i) Write the elements of set A.

ii) Find $n(A)$

iii) Fill in the suitable symbol from \in , \notin in the blank 6 _____ A

(2+2+3+2+1+1)

4) Simplify:

a) i) $\frac{1}{3} + \frac{2}{5}$

ii) $4 - 2\frac{1}{8}$

iii) $\frac{2}{5} \times 1\frac{1}{4}$

iv) $\frac{5}{8} \div 1\frac{3}{5}$

b) If $1\frac{1}{4}m$ cloth is needed to sew a pair of trousers for a student. Find the number of pair of trousers that can be sewn from 50m cloth.

(2+2+2+2+3)

5) a) Factorise

i) $81 - 3a^2$

ii) $7a^2b - 3ab + 2ab^2$

iii) Write $81x^2 - 36$ as difference of two squares.

b) If $a = 2$, $b = -1$ find the value of $a^2 + 2ab$

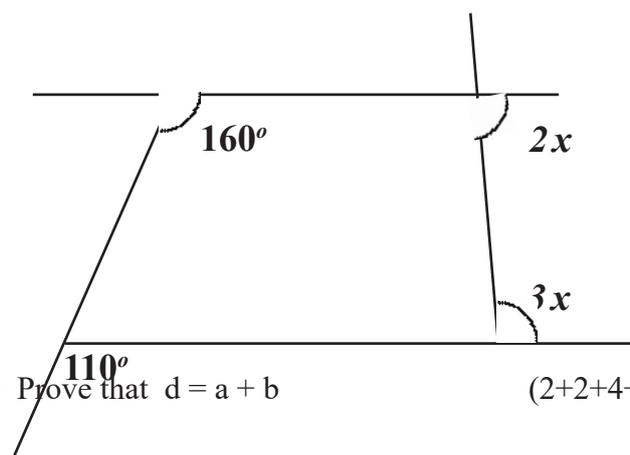
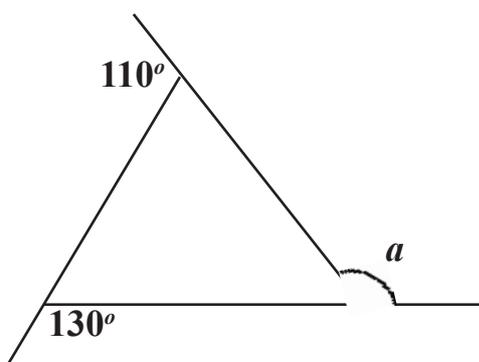
c) i) Write 4^3 as a power of 2

ii) Write $4^3 \times 3^6$ as a power of product

(2+2+2+2+1+2)

6) i) Find the magnitude of a

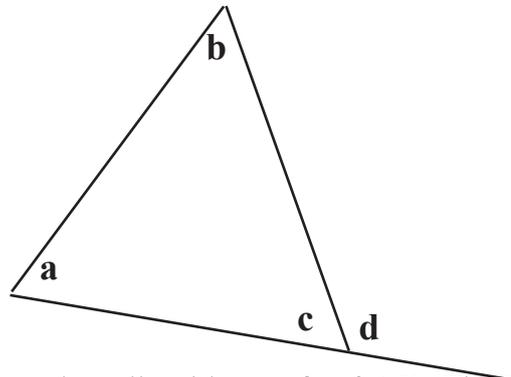
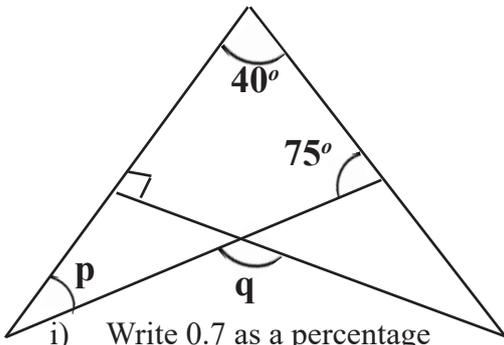
ii) Find the magnitude of x



iii) Find the magnitude of p and q

iv) Prove that $d = a + b$

(2+2+4+3)



- 7) a) i) Write 0.7 as a percentage
- ii) The cost price of a clock is Rs.2000. If A trader sells with a profit of 15% Find the selling price.
- iii) In a certain number of oranges, If 75% number of orange is 54. Find the total number of oranges.
- b) In the mixture the ratio of cement and gravel is 1 : 4 and the ratio of gravel and sand 3 :2
- i) Find the ratio between cement gravel and sand
- ii) Find the quantity of cement gravel and sand in the mixture of 92 pans.