HALF YEARLY EXAMINATION
Mathematics

Class: VIII

Time Allowed: 3 Hrs
Maximum Marks: 80

My Name: …………………………………………………………………

Signature:

Roll Number

Q Code

E1P10

GENERAL INSTRUCTION
1. There are 4 sections in this question paper.
2. The question paper contain 28 questions in four section
   a. Section A contains 8 questions carry 1 marks each
   b. Section B contains 9 questions carry 2 marks each
   c. Section C contains 6 questions carry 4 marks each
   d. Section D contains 5 questions carry 6 marks each
3. All questions are compulsory.
4. Do all calculation in the left side of answer sheets.

SECTION A

1. Reciprocal of $\frac{4}{3}$ x $\frac{9}{16}$.

   a) $\frac{-3}{4}$ b) $\frac{-4}{3}$ c) $\frac{4}{3}$ d) $\frac{3}{4}$

2. Find the value of x in the expression 2x -3 = 7

   a) 5   b) -5   c) 2   d) -2

3. A parallelogram with sides of equal length

   a) Rhombus   d) Parallelogram

   c) Kite   d) Rectangle

4. A perfect square numbers can never have the digit at its ones place as

   a) 3   b) 6   c) 5   d) 1

5. How many natural numbers lie between 9^2 and $10^{2?}$

   a) 19   b) 18   c) 20   d) 17

6. How many measurements are required to draw quadrilateral?

   a) 4   b) 5   c) 6   d) 3

7. The number of zeros at the end of the cube of the number 10?
        a) 2   b) 6   c) 3   d) 1

8. Find the number of sides of a regular polygon who's each exterior angle has a measure of 45°.
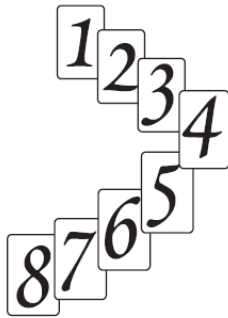   a) 12   b) 8   c) 4   d) 6

SECTION B

9. Convert 3:4 into percentage

10. Find $\dfrac{4}{5}X\dfrac{3}{7} \ X \ \dfrac{15}{16} \ X \ -\dfrac{14}{9}$
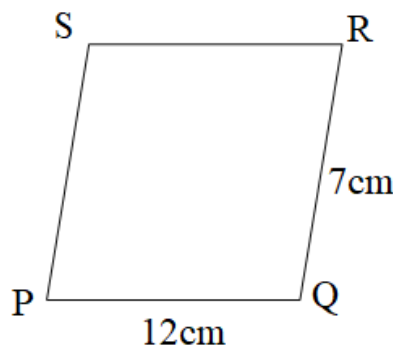
11. The difference between two whole numbers is 66. The ratio of the two numbers is 2:5. What are the two numbers?

12. Find the cube root of 13824 by prime factorization method.

13. These 8 cards are placed face down and shuffled

If Varsha turns over only one card what is the probability she will get a card with a number less than 4?

14. Find the least number that must be added to 1300 so as to get a perfect square. And find the square root of that perfect square?

15. When a die is thrown list the outcomes of an event of getting

        a) A prime number   b) not a prime number

        c) A number greater than 5   d) a number not greater than 5

16. Find the perimeter of the parallelogram PQRS

17. Solve $8x + 4 = 3(x-1) + 7$

SECTION C

18. Name the property under multiplication using in each of the following.

$$\text{a)} \ \frac{-4}{5} x \ 1 = 1 \ x \ -\frac{-4}{5} = \frac{4}{5}$$

$$\text{b)} \ \frac{13}{17} x \ -\frac{-2}{7} = \frac{-2}{7} \ x \ \frac{-13}{17}$$

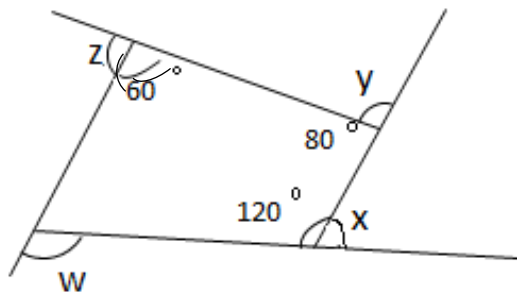$$\text{c)} \ \frac{-19}{29} x \frac{29}{-19} = 1$$

19. Is 68600 a perfect cube? If not, find the smallest number by which 68600 must be multiplied to get a perfect cube.

20. The digits of a two digit number differ by 3. If the digits are interchanged and the resulting number is added to the original number we get 143. What can be the original number?

OR

Reshmi brought two fans for Rs.1200 each. She sold one at a loss of 5% another at a profit of 10%. Find the selling price of each. Find the total profit and loss?

21 .Find $x + y + z + w$

22. Construct a quadrilateral ABCD where
        AB = 4.5cm, BC = 5.5cm,   CD = 4cm   AD = 6cm   AC = 7cm.

23. The weekly wages (in ₹) of 30 workers in a factory are
            830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860,
            832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836,
            878, 840, 868, 890, 806, 840
Using tally marks make a frequency table with intervals 800 - 810, 810 - 820
and so on

24. Observe the following pattern and find the missing digits

$$11^2 = 121$$
$$101^2 = 10201$$
$$1001^2 = 1002001$$
$$100001^2 = 1..........2............1$$
$$10000001^2 = \text{.........................}$$
$$1000000001^2 = \text{.........................}$$

SECTION D

25. Find the difference between the compound interest and simple interest on 84000 at 10% per annum for two years.

26. The following figures GUNS and RUNS are parallelogram. Find x and y.
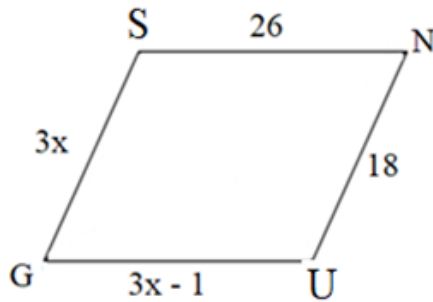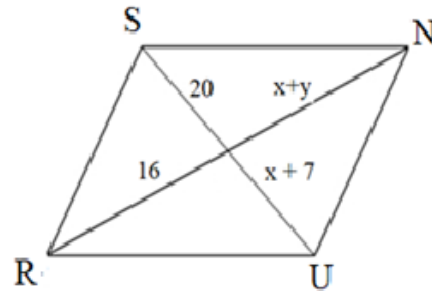

Figure 1

Figure 2

27. Present ages of Anu and Raju Are in the ratio 4:5 Eight years from now the ratio of their ages will be 5:6. Find their present ages.

OR

Numbers 1 to 10 are written on ten separate slips. (One number in one slip) kept in a box and mixed well. One slip is chosen from the box without looking into it what is probability of.
   (a) Getting a number by 6?
   (b) Getting a number less than 6?
   (c) Getting a number greater than 6?
   (d) Getting a 1 digit number?

28. On a particular day, the sales (rupees) of different items of a baker's shop are given below

Ordinary bread	320
Fruit bread	80
Cakes and pastries	160
Biscuits	120
others	40
Total	720

Draw a pie chart of this data.