

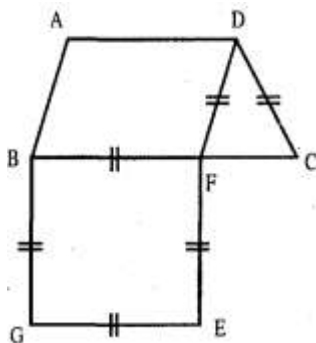
First Step Program (Std V) Ganit Pradnya - Preparatory Program

Test Paper – Year 2014

Solve the following problems with Proper Procedure and Explanation.

1. Find the sum of three digit largest prime number and smallest three digit prime number. Find the factors of the sum. Which number should be added to the sum of the factors so as to get the square of nine.

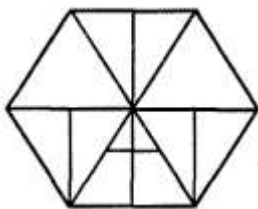
2. In the adjoining fig ABCD is a trapezium side AD || side BC, $\angle (AB) = \angle (GE)$, $\angle (AD) = 12\text{cm}$ $\angle BC = 20\text{cm}$, $\angle (AB) = 6\text{cm}$, $\angle (DF) = 7\text{cm}$ and BGEF is square. Find the perimeter of the whole Figure.



3. Observe the adjoining fig. and state

1) No. of quadrilaterals

2) No. of triangles.



4. A drum contains water upto $\frac{3}{4}$ of its capacity,

if 9 liters of water is drawn from it then the drum remains half filled. Then find the amount of water in the drum at the beginning and capacity of the drum.

5. There are 17 numbers such that the next number exceeds the preceding number by 5. The sum of all 17 numbers is 816. Find the number at the middle.

6. Four Prime numbers are written in ascending order such that the product of first three prime numbers is 4199 and the product of last three prime numbers is 7429. Find the sum of these prime numbers and hence find the smallest integer by which the sum of prime numbers is multiplied so that the resulting product should be the smallest perfect square and the resulting product should be a perfect cube.

7. Write two lowest two digit perfect squares in Roman and write the difference between them in Roman.

8. Find the sum of all numbers up to 100 having the digits at unit place, 3, 5 and 7.

9. The product of two consecutive numbers is 510510 Then find the numbers.

10. Draw $\angle ABC = 120^\circ$ By using Compass divide the $\angle ABC$ as follows : $\angle ABD = 30^\circ$, $\angle DBE = 30^\circ$, $\angle EBC = 60^\circ$

11. Find all two digit numbers when divided by 15 leave remainder 8. Hence find the numbers whose sum of digits is same and find the sum of such numbers.

12. Simplify : $\frac{1}{1 \times} + \frac{1}{\times} + \frac{1}{\times} + \frac{1}{\times}$

13. $\frac{4}{7}$ of a pole is the mud. When $\frac{1}{3}$ of the part in mud is pulled out still a 8m. long part remains in the mud. Find total length of the pole.

14. Sum of four numbers is 144. Out of these four numbers if 5 is added to second number, 5 is subtracted from third number and fourth number is multiplied by 5 the answers are equal to the first number. Find the four numbers.

15. The sum of digits of three digit prime number is equal to the two digit smallest prime number find such three digit prime numbers upto 200.

16. Find the value of m.

$$0.6m = \frac{\quad}{\quad} \div \frac{\quad}{\quad} + \left(\frac{\quad}{\quad} \right) \\ - \quad - \quad + \quad + \quad \times$$

17. if $I \times I = MY$ and $MY \times MY = WHY$. Then write the number WHY (I, M, H and Y are different digits)

18. The sum of two fractions is $14\frac{5}{12}$ If one of them is $7\frac{2}{3}$ then find the other.

19. Find next three numbers of the sequence 3, 35, 99, 195 ...

20. A person expends $\frac{1}{12}$ of his monthly salary

on milk, $\frac{1}{4}$ part on food $\frac{1}{3}$ part on

education and travelling and $\frac{1}{6}$ part on medical,

though his monthly saving is Rs. 1000. Find his monthly salary and expenditure on each item.

