Job Skills PROGRAM

Numbers-1 (Factors, Multiples, Divisibility)

1. How many numbers between 1 and 100 are multiples of 7?

2. How many numbers between 40 and 100 are divisible by 7?

3. How many numbers between 20 and 100 are divisible by both 2 and 3?

4. How many numbers are there between 50 and 90 which are multiples of 4 but not multiples of 5?

5. Find the H.C.F. of the following:
   $2^5 \cdot 3^4 \cdot 7^2$, $2^3 \cdot 5^4 \cdot 7^4$ and $2^4 \cdot 3^6 \cdot 5^2$

6. Find the L.C.M. of the following:
   $2^5 \cdot 3^4 \cdot 7^2$, $2^3 \cdot 5^4 \cdot 7^4$ and $2^4 \cdot 3^6 \cdot 5^2$

7. Which of the following are prime numbers?
   161, 163, 171, 183, 221

8. Express 120 in terms of its prime factors.

9. The number 120 has how many factors (including 1 and 120 itself)?

10. How many numbers between 1 and 100 are divisible by 8/ multiples of 8? Write these numbers.

11. How many numbers between 1 and 100 are there which when divided by 8 leave a remainder of 2? Write these numbers.

12. A number when divided by 171 leaves a remainder of 23 and a quotient of 18. If the same number is divided by 19, what will be the remainder and what will be the quotient?

13. Find the smallest number that must be subtracted from 1000 to make it divisible by 31. Also find the smallest number that must be added to 1000 to make it divisible by 31.

14. Find the least number which when divided by 17 leaves a remainder of 4 but when divided by 7 leaves a remainder of 5?

15. Write the first 5 numbers which when divided by 17 leave a remainder of 4 but when divided by 7 leave a remainder of 5.

16. Find the smallest number which when divided by 2, 3 or 5, leaves a remainder of 1 in each case?

17. Find the smallest number which when divided by 2, 3 or 5, leaves a remainder of 1 in each case but when divided by 11 leaves no remainder?

18. Find the smallest number which when divided by 3, 4 and 5, leaves remainders of 2, 3 and 4 respectively?

19. Find the smallest number which when divided by 3, 4 and 5, leaves remainders of 1, 2 and 3 respectively but when divided by 17 leaves no remainder?