

12. If the prime factorisation of 2520 is $2^3 \times 3^a \times b \times 7$, then the value of $a + 2b$ is :
- (A) 12 (B) 10
(C) 9 (D) 7
13. Which out of the following type of straight lines will be represented by the system of equations $3x + 4y = 5$ and $6x + 8y = 7$?
- (A) Parallel
(B) Intersecting
(C) Coincident
(D) Perpendicular to each other
14. One ticket is drawn at random from a bag containing tickets numbered 1 to 40. The probability that the selected ticket has a number which is a multiple of 7 is :
- (A) $\frac{1}{7}$ (B) $\frac{1}{8}$
(C) $\frac{1}{5}$ (D) $\frac{7}{40}$
15. The LCM of three numbers 28, 44, 132 is :
- (A) 258 (B) 231
(C) 462 (D) 924



- 16.** The number of terms in the A.P. 3, 6, 9, 12, ..., 111 is :
- | | |
|--------|--------|
| (A) 36 | (B) 40 |
| (C) 37 | (D) 30 |

- (A) The sum of first and eighth terms of an A.P. is 32 and their product is 60. Find the first term and common difference of the A.P. Hence, also find the sum of its first 20 terms.

OR

- (B) In an A.P. of 40 terms, the sum of first 9 terms is 153 and the sum of last 6 terms is 687. Determine the first term and common difference of A.P. Also, find the sum of all the terms of the A.P.