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11- Three number are in the ratio of 3 : 4 : 5 and their L.C.M. is 2400. Their H.C.F. is:

- **A.**40
- **B.**80
- **C.**120
- **D.**200
- E.None of these

Answer & Explanation

Answer - **A** (40) Explanation - Let the numbers be 3x, 4x and 5x.

Then, their L.C.M. = 60x.

So, 60x = 2400 or x = 40.

The numbers are (3×40) , (4×40) and (5×40) .

Hence, required H.C.F. = 40.

12- The G.C.D. of 1.08, 0.36 and 0.9 is:

- **A.**0.03
- **B.**0.9
- **C.**0.18
- **D.**0.108
- E.None of these

Answer & Explanation

Answer - C (0.18) Explanation - Given numbers are 1.08, 0.36 and 0.90.

H.C.F. of 108, 36 and 90 is 18,

H.C.F. of given numbers = 0.18.

13- The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is:

- **A.**1
- **B.**2
- **C**.3

- **D.**4
- E.None of these

Answer & Explanation

Answer - **B** (2) Explanation - Let the numbers 13*a* and 13*b*.

Then, 13*a* x 13*b* = 2028

ab = 12.

Now, the co-primes with product 12 are (1, 12) and (3, 4).

[Note: Two integers *a* and *b* are said to be **coprime** or relatively prime if they have no common

positive factor other than 1 or, equivalently, if their greatest common divisor is 1]

So, the required numbers are (13 x 1, 13 x 12) and (13 x 3, 13 x 4).

Clearly, there are 2 such pairs.

14- The least multiple of 7, which leaves a remainder of 4, when divided by 6, 9, 15 and 18 is:

- **A**.74
- **B.**94
- **C.**184
- **D.**364
- E.None of these

Answer & Explanation

Answer - D (364) Explanation - L.C.M. of 6, 9, 15 and 18 is 90.

Let required number be 90k + 4, which is multiple of 7.

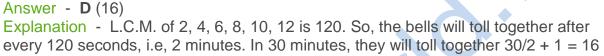
Least value of k for which (90k + 4) is divisible by 7 is k = 4.

Required number = $(90 \times 4) + 4 = 364$.

15- Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?

- **A.**4
- **B.**10
- **C.**15
- **D.**16
- E.None of these

Answer & Explanation



16- The least number, which when divided by 48, 60, 72, 108 and 140 leaves 38, 50, 62, 98 and 130 as remainders respectively, is:

- **A.**11115
- **B.**15110
- **C.**15120
- **D.**15210
- E.None of these

Answer & Explanation

Answer - **B** (15110) Explanation - Here (48 - 38) = 10, (60 - 50) = 10, (72 - 62) = 10, (108 - 98) = 10 & (140 - 130) = 10.

Required number = (L.C.M. of 48, 60, 72, 108, 140) – 10

= 15120 - 10 = 15110

17- The H.C.F. of two numbers is 11 and their L.C.M. is 7700. If one of the numbers is 275, then the other is:

- **A.**279
- **B.**283
- **C.**308
- **D.**318
- E.None of these

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Answer & Explanation

Answer - **C** (308) Explanation -

11 x 7700

Other number =

____ = 308

275

18- The least number which should be added to 2497 so that the sum is exactly divisible by 5, 6, 4 and 3 is:

- **A**.3
- **B.**13
- **C.**23
- **D**.33
- E.None of these

Answer & Explanation

Answer - C (23)

Explanation - L.C.M. of 5, 6, 4 and 3 = 60. On dividing 2497 by 60, the remainder is 37. Number to be added = (60 - 37) = 23

19- The H.C.F. of 1.75, 5.6 and 7 is:

- **A.**0.07
- **B.**0.7
- **C.**3.5
- **D.**0.35
- E.None of these

Answer & Explanation

Answer - **D** (0.35)

Explanation - Given numbers with two decimal places are : 1.75, 5.60 and 7.00. Without decimal places, these numbers are : 175, 560 and 700, whose H.C.F. is 35. H.C.F of given numbers = 0.35

20- A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they meet again at the starting point?

- A.26 minutes 18 seconds
- **B.**42 minutes 36 seconds

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- C.45 minutes
- D.46 minutes 12 seconds
- E.None of these

Answer & Explanation

Answer - **D** (46 minutes 12 seconds) Explanation - L.C.M. of 252, 308 and 198 = 2772. So, A, B and C will again meet at the starting point in 2772 see i.e., 46 min. 12 sec