

CHAPTER-5 | Prime Time

QUIZ
PART-03

1. Which of the following is a multiple of 40 between 310 and 410?

- A. 340
B. 360
C. 380
D. 390 (B)

Explanation: Multiples of 40 near this range are 320, 360, and 400. So 360 is correct.

2. How many multiples of 40 lie between 310 and 410?

- A. 2
B. 3
C. 4
D. 5 (B)

Explanation: The multiples are 320, 360, and 400, so there are 3.

3. I am less than 40, one of my factors is 7, and the sum of my digits is 8. Who am I?

- A. 14
B. 21
C. 28
D. 35 (D)

Explanation: Multiples of 7 less than 40 are 7, 14, 21, 28, 35. Only 35 has digit sum $3 + 5 = 8$.

4. I am less than 100, divisible by 3 and 5, and one digit is 1 more than the other. Who am I?

- A. 30
B. 45
C. 60
D. 75 (B)

Explanation: A number divisible by both 3 and 5 must be a multiple of 15. Among the options, 45 has digits 4 and 5, where one is 1 more than the other.

5. Which perfect number lies between 1 and 10?

- A. 4
B. 5
C. 6
D. 8 (C)

Explanation: Factors of 6 are 1, 2, 3, 6 and their sum is 12, which is twice 6.

6. What are the common factors of 20 and 28?

- A. 1, 2, 4
B. 1, 4, 7
C. 2, 5, 10
D. 1, 2, 7 (A)

Explanation: Factors common to both 20 and 28 are 1, 2, and 4.

7. What are the common factors of 35 and 50?

- A. 1, 2, 5
B. 1, 5
C. 5, 10
D. 1, 7 (B)

Explanation: Factors of 35 are 1, 5, 7, 35 and of 50 are 1, 2, 5, 10, 25, 50. Common factors are 1 and 5.

8. What are the common factors of 4, 8, and 12?

- A. 1, 2
B. 2, 4
C. 1, 2, 4
D. 1, 4, 8 (C)

Explanation: The numbers 1, 2, and 4 divide all three numbers exactly.

9. Which of the following is a multiple of 25 but not a multiple of 50?

- A. 50
B. 75
C. 100
D. 150 (B)

Explanation: $75 = 25 \times 3$, so it is a multiple of 25, but it is not divisible by 50.

10. In the Idli-Vada game, which two numbers smaller than 10 can first give "Idli-Vada" after 50?

- A. 5 and 8
B. 4 and 9
C. 6 and 9
D. 3 and 8 (C)

Explanation: The first common multiple of 6 and 9 is 18, then 36, then 54, which is the first one after 50.