1. Is there any even prime number other than 2?
   A. Yes, 4
   B. Yes, 6
   C. No
   D. Yes, 8 (C)

Explanation : 2 is the only even prime number. Every other even number is divisible by 2 and so is not prime.

2. What is the smallest difference between two successive primes up to 100?
   A. 1 B. 2
   C. 3 D. 4 (A)

Explanation: The smallest gap is between 2 and 3, which is 1.

3. What is the largest difference between two successive primes up to 100?
   A. 6 B. 7
   C. 8 D. 9 (C)

Explanation: The largest gap up to 100 is between 89 and 97, which is 8.

4. Which decade has the least number of primes?
   A. 20–29
   B. 50–59
   C. 70–79
   D. 90–99 (D)

Explanation: In 90–99, only 97 is prime, so this decade has the least primes.

5. Which decades have the greatest number of primes?
   A. 0–9 and 10–19
   B. 20–29 and 30–39
   C. 40–49 and 50–59
   D. 60–69 and 70–79 (A)

Explanation : Both 0–9 and 10–19 contain 4 prime numbers each.

6. Which of these numbers are prime? 23, 51, 37, 26
   A. 23 and 37 B. 23 and 51
   C. 37 and 26 D. 51 and 26 (A)

Explanation : 23 and 37 have exactly two factors. 51 = 3 × 17 and 26 = 2 × 13, so they are not prime.

7. Which pair of prime numbers less than 20 has a sum that is a multiple of 5?
   A. 3 and 7
   B. 5 and 7
   C. 2 and 13
   D. 11 and 13 (C)

Explanation : 2 + 13 = 15, and 15 is a multiple of 5.

8. Which of the following is NOT a valid pair of prime numbers less than 20 whose sum is a multiple of 5?
   A. 2 and 3
   B. 2 and 13
   C. 7 and 13
   D. 11 and 17 (D)

Explanation : 11 + 17 = 28, which is not a multiple of 5.

9. Which pair is made of the same digits and both numbers are prime?
   A. 13 and 31
   B. 23 and 32
   C. 19 and 91
   D. 29 and 92 (A)

Explanation : 13 and 31 use the same digits, and both are prime.

10. Which of the following is a valid prime pair up to 100 with reversed digits?
    A. 17 and 71
    B. 27 and 72
    C. 39 and 93
    D. 49 and 94 (A)

Explanation : 17 and 71 are both prime and use the same digits in reverse order.