1. Factorize the polynomial $12x^2 - 7x + 1$
   A. (3x - 1)(4x - 1)
   B.(6x - 1)(2x - 1)
   C.(6x - 1)(2x - 1)
   D. (4x - 3)(3x - 1) (A)
   Explanation: The polynomial $12x^2 - 7x + 1$ can be factorized as (3x - 1)(4x - 1)
2. Factorize $2x^2 + 7x + 3$
   A. (2x + 1)(x + 3)
   B. (2x + 3)(x + 1)
   C. (2x + 1)(x + 2)
   D. (x + 3)(2x + 1) (B)
   Explanation: The factorization of $2x^2 + 7x + 3$ is (2x + 3)(x + 1)
3. Factorize $6x^2 + 5x – 6$
   A. (2x - 3)(3x + 2)
   B. (3x - 2)(2x + 3)
   C. (6x - 1)(x + 6)
   D. (6x + 1)(x - 6) (B)
   Explanation: The factorization of $6x^2 + 5x - 6$ is (3x - 2)(2x + 3)
4. Factorize $3x^2 - x – 4$
   A. (x + 1)(3x - 4)
   B. (x - 4)(3x + 1)
   C. (3x - 1)(x + 4)
   D. (x - 4)(3x - 1) (D)
   Explanation: The factorization of $3x^2 - x - 4$ is (x - 4)(3x - 1)
5. What is the factorization of $12x^2 + 13x + 3$?
   A. (4x + 1)(3x + 3)
   B. (3x + 1)(4x + 3)
   C. (3x - 1)(4x + 3)
   D. (4x - 3)(3x + 1) (B)
   Explanation : The factorization of $12x^2 + 13x + 3$ is (3x + 1)(4x + 3)
6. Factorize $x^2 + 6x + 5$
   A. (x + 5)(x + 1)
   B. (x - 5)(x - 1)
   C. (x + 2)(x + 3)
   D. (x - 1)(x - 5) (A)
   Explanation: The factorization of $x^2 + 6x + 5$ is (x + 5)(x + 1)
7. What is the factorization of $3x^2 - 12x + 9$
   A. (3x - 3)(x - 3)
   B. (x - 3)(3x + 3)
   C. (3x + 3)(x - 3)
   D. (x + 3)(3x - 3) (A)
   Explanation: The factorization of $3x^2 - 12x + 9$ is (3x - 3)(x - 3)
8. Which of the following is the factorization of $x^2 – 9$
   A. (x - 3)(x + 3)
   B. (x + 9)(x - 1)
   C. (x + 3)(x + 3)
   D. (x - 9)(x - 1) (A)
   Explanation: x^2 - 9 is a difference of squares, so its factorization is (x - 3)(x + 3)
9. Factorize x ^ 2 + 10x + 21
   A. (x + 3)(x + 7)
   B. (x - 3)(x - 7)
   C. (x + 2)(x + 8)
   D. (x + 5)(x + 4) (A)
   Explanation: The factorization of $x^2 + 10x + 21$ is (x + 3)(x + 7)
10. Factorize $x^2 + 4x + 4$
    A. (x + 2)(x + 2)
    B. (x - 2)(x - 2)
    C. . (x + 4)(x + 1)
    D. (x - 1)(x + 1) (A)
    Explanation: The polynomial $x^2 + 4x + 4$ is a perfect square trinomial, and its factorization is (x + 2)(x + 2)