1) The product of the binomial $3x-2$ and the trinomial $5x^2+8x-3$ can be expressed in the form Ax^3+Bx^2+Cx+D, where A, B, C, and D represent integers. What is the numerical value of the sum of A, B, C, and D?

2) When the decomposition method is used to factor the trinomial $6x^2+7x-3$, one of the factors is

(A) $6x-15$
(B) $2x+3$
(C) $3x-2$
(D) $3x+1$

3) If $(3x+2)(4x-1)(2x+3)=24x^3+46x^2+Ax-6$, then what is the value of A?

(A) -9
(B) -11
(C) 11
(D) 19

4) One factor of the polynomial $12x^3+kx^2-10x-15$ is $2x+3$. If k is a whole number, then the value of k is .

5) The expression $144-49x^2$ can be written in factor form as

(A) $(12-7x)(12+7x)$
(B) $(12-7x)(12-7x)$
(C) $(7x-12)(7x+12)$
(D) $(7x-12)(7x-12)$

6) When the binomial $12x^2y^4 - 8x^3y^3$ is factored, the result is

(A) $4(3x^2y^4 - 2x^3y^3)$

(B) $4xy(3xy^3 - 2x^2y^2)$

(C) $4x^2y^2(3y^2 - 2xy)$

(D) $4x^2y^3(3y - 2x)$

7) One factor of $x^2 - 9x + 20$ is

(A) $(x - 10)$

(B) $(x + 5)$

(C) $(x - 4)$

(D) $(x + 2)$

8) One factor of the expression $16x^{64} - 49y^{36}$ is

(A) $8x^{32} + 7y^{18}$

(B) $4x^{32} + 7y^{18}$

(C) $8x^8 - 7y^6$

(D) $4x^8 - 7^6$

9) When the expression $3(y - 7)(x - 1)$ is simplified, the result is

(A) $-21xy + 7$

(B) $xy - y - 7x + 21$

(C) $3xy - 3y - 21x + 21$

(D) $9xy - 9y - 63x - 63$

10) When $(x + a)(x + b)(x + c)$ is expanded and like terms are collected, what is the coefficient of the x^2 term?

(A) 1

(B) 3

(C) abc

(D) $a + b + c$