8.1 Adding and Subtracting Polynomials

1. Name the degree
2. Standard Form
3. Name the Leading Coefficient
4. Name the Constant
5. Identify Monomial, Binomial, Trinomial

1) $9b - 9b^2 + 7b^3 - 1$

2) $6k^2 + 3k - 3 - k^3$

3) $-4r^5 + 6r + 1 - 4r^2$

4) $-3 + 6n^2 + 2n$

5) $3x^2$

Simplify each sum.

6) $(4x - 6) + (7 - 7x)$

7) $(2 + 2p^4) + (8 - 6p^4)$

8) $(6k^3 - 6k^2) + (5k^2 + 7k^3 - 7)$

9) $(3n^2 - 7n^3) + (4n - 6n^3 - 8n^2)$

10) $(6x^3 - 7 + 7x^4) + (8x^3 - 7x - x^4)$

11) $(4n - 6n^3 - 3) + (3n^3 + 2n + 2)$

12) $\left(-8r^4 - 6r^2 - 1 - 8r^3\right) + \left(4r^3 - 8r^4 + 7\right)$

13) $\left(6x + 7x^3\right) + \left(4x^2 + x^3 - 7\right) + \left(-8x^4 + 3x^2 - 2x^3 + 2\right)$

Simplify each difference.

14) $\left(6 + 8p^4\right) - \left(7p^3 + 3 + 8p^4\right)$

15) $\left(7a^2 - 7\right) - \left(8a + a^2 + 1\right)$

16) $\left(7 - 6m^3 - 4m\right) - \left(4 - 8m - 3m^3\right)$

17) $\left(6 + 6x^3 - 4x^4\right) - \left(7 + 8x^2 - 4x^4\right)$

18) $\left(-5 - 5a^2 - 7a + 5a^4\right) - \left(-2a - 2a^2 - 8a^4\right) - \left(-8a^3 + 4 - 7a^4 + 3a\right)$

19) $\left(-3n^3 - 7n^4 - 3n + 7\right) - \left(5n + n^4 + 3\right) - \left(1 - 4n^4 - 2n^3 + 6n\right)$

20) $\left(5n - 7n^4 - 6n^2 + 1\right) - \left(2n^4 + 5n^2 - 6n\right)$