# 1.4 Add and Subtract Polynomials

**PRACTICE**

**Rewrite each polynomial in standard form and then state the degree of the polynomial.**

1. $5x^2 - 4x^3 + 5$

$-4x^3 + 5x^2 + 5$

Degree = 3

2. $10x^6 - 13x^7$

$-13x^7 + 10x^6$

Degree = 7

3. $6 - 4g^2 + 7g + 5g^3$

$5g^3 - 4g^2 + 7g + 6$

Degree = 3

4. $8 - x$

$-x + 8$

Degree = 1

5. $4(1 + 3x + 5x^2)$

$4 + 12x + 20x^2$

$20x^2 + 12x + 4$

Degree = 2

6. $16 + x^2$

$x^2 + 16$

Degree = 2

**Find each sum or difference. Write your solution in standard form.**

7. $(5a^2 - 3) + (8a^2 - 1)$

$5a^2 - 3 + 8a^2 - 1$

$5a^2 + 8a^2 - 3 - 1$

$13a^2 - 4$

8. $(7k^2 + 2k - 6) - (3k^2 - 11k - 8)$

$7k^2 + 2k - 6 - 3k^2 + 11k + 8$

$7k^2 - 3k^2 + 2k + 11k - 6 + 8$

$4k^2 + 13k + 2$

9. $(4m^2 - m + 2) + (-3m^2 + 10m + 7)$

$4m^2 - m + 2 - 3m^2 + 10m + 7$

$4m^2 - 3m^2 - m + 10m + 2 + 7$

$m^2 + 9m + 9$

10. $(6c^2 + 3c + 9) - (3c - 5)$

$6c^2 + 3c + 9 - 3c + 5$

$6c^2 + 3c - 3c + 9 + 5$

$6c^2 + 14$

11. $2(n^2 + 2n) - (2n^3 - n^2 + n + 12)$

$2n^2 + 4n - 2n^3 + n^2 - n - 12$

$-2n^3 + 2n^2 + n^2 + 4n - n - 12$

$-2n^3 + 3n^2 + 3n - 12$

12. $3(x^2 + 2) - 4(x^2 + 5)$

$3x^2 + 6 - 4x^2 - 20$

$3x^2 - 4x^2 + 6 - 20$

$-x^2 - 14$