Math 1513 - College Algebra
Discussion Board Week 1 - Due 2012.01.14

Simplify by removing all grouping symbols and combining like terms.

1. $5(a^3 - 2a^2 + b) - 4(a^2 + a - b^2 + ab - 10)$

2. $2(a^2 + 2a - b^2 + 2) + 2(a + 3a^2 - 3ab^2 + 10b)$

3. $3(2a^2 + b^2 - 4a + 2b) - 9(b^2 + b - 10a^2 + 3a + 5)$

4. $7(a^2 + 7b^2 + b - a - 7) + 5(a^3 + a^2 - b^2 - 6b)$

5. $8(a^2 - 2a + b^2 + 5b) - 4(3a^3 + a^2 + 5b^2 + b + 1)$

6. $-3(4a^2 + 2a^3 + b - b^4) + 3(a^3 + a^2 - b^4 + b)$

7. $5(x^2 - 2xy + 6y^2 - y + x) - 6(x^3 + xy - y^2 + 3x)$

8. $15(2x^2 + 3x^2y + 6y - y^3 + x) + 2(x^3 + xy^2 - y^2 + 3x)$

9. $2(x^3 + 5xy - 6x^2 - y + x^2) + 7(x^2 - xy - x^2 - 3x + 6)$

10. $5(x^3 + 5x^2y - 6x^2 - y + x^2 - 2) - 6(3x^2 + 6xy^2 + x^2y - 5y)$

11. $3(-x^2 + 5x^2y - 6x^3 - y^2 + x - 2) + 2(7x^2y - 6xy^2 + xy - 5y + 2 - x)$

12. $8(x^2 + 5xy - 6x^3 - y^2 + x - 2) + 5(7xy - 6x + y - 5y^2 + 13)$

13. $-9(x^3 + 5xy - 8x - y^2 + x^2 - 2y) - 7(x^3 - x^2y + 7xy^2 + y^2 - 4x^2 + 2)$

14. $5(m^3 - 2n^2 - 3mn - 7 + n) - 3(m^2 - n^3 + 4mn + m - 6n + 3)$

15. $3(3m^3 + 2n^2 - 3mn - 14n - m + 12) - 6(m^2 - m^3 + n^2 - 4mn + m - 7n + 3)$

16. $-2(m^2 - 3n^3 - 3m^2n - 14nm^2 - m + 5n + 12) + 7(m^2 - 3n^3 + mn^2 - 4m^2n + m - 7n + 6)$

17. $8(m^2 + 3n - m^3 + n^2 = 3mn + 5) - 5(m^2 - 3n^3 + mn^2 - m - 7n + 6)$

18. $2(k^3 - 4jk + j^2 - 3j + 4k - 3) + 7(2k^2 + 4j^2k + j^2 + 7j - 4k + 5)$

19. $-5(k^2 + 6jk + j^3 - 3j + 9k - 3) - 9(2k^3 + 4kj + j^3 + 9j + 9k + 6)$

20. $8(k^3 - 7jk + j^2 - 3j + 4k) - 2(2k^2 + 4kj + j^2 + 9j - 6)$

21. $-3(k^2 - 7jk + j + 6jk^2 - 7k + 2) + 8(2k^2 + 4kj + k^2j + 9j + 2)$

22. $7(2c^2 + cd + d^3 - 10d) + 6(d^3 - 2d + c^2 + cd - 2)$

23. $8(2c^3 + 5c^2d + 2d - 5) - 9(d^2 + 6d + c^3 + c^2d - 2cd^2)$

24. $2(5c^2 + 5cd^2 + 12d + 5c) + 3(-2d + 16d^2 + 13c^3 - c^2d - 2cd^2 + 8)$

25. $12(-5c + 7cd + 9d^2 - 5c^2d^2 + 4) - 2(-2cd + 9d^3 + 5c^2d^2 + 7c + 9)$

26. $6(qr + 4q^2r^2 - 3q + 5r + 2) + 3(q - 4r + q^2r + 3qr^2 - 2)$