

## Factoring Polynomials Completely HW-1

**Factor.**

1)  $2v + 8v^2 + 4v^3$

2)  $30 + 20n + 40n^2$

3)  $-8x^7 + 20x^4 + 6x^3$

4)  $56a^5 + 24a^2 - 64$

5)  $10n^3 + 100n^2 - 100$

6)  $8x^3 - 14x^2 + 12$

7)  $48x^8 - 56x^2 + 80x$

8)  $-2 + 4b - 2b^4$

$$9) 4x^2 + 24x + 20$$

$$10) -3m^2 + 33m - 90$$

$$11) 2v^2 + 12v - 80$$

$$12) 5n^2 + 75n + 250$$

$$13) 6p^2 - 6p - 540$$

$$14) 6a^2 + 30a - 144$$

**Simplify each expression.**

$$15) (x^2 + 2 + 6x^4) + (5x^4 + 6x^2 + 1)$$

$$16) (4 - 3x + 2x^3) - (6x^3 + 3x + 3)$$