

Homework #8.1 Factoring Expressions With Common Factors

Date _____

Factor the common factor out of each expression.

1) $10n - 4$

$2(5n - 2)$

2) $16b + 4$

$4(4b + 1)$

3) $6r^2 - 15r$

$3r(2r - 5)$

4) $3x^2 + 12$

$3(x^2 + 4)$

5) $8k^3 + 2k^5$

$2k^3(4 + k^2)$

6) $5x^9 - 10x^3$

$5x^3(x^6 - 2)$

7) $9r^2 - 12r^4$

$3r^2(3 - 4r^2)$

8) $15x + 25$

$5(3x + 5)$

$$9) -35b^5 + 20b^4 - 50b^2$$

$$-5b^2(7b^3 - 4b^2 + 10)$$

$$10) 16x^2 + 14x + 18$$

$$2(8x^2 + 7x + 9)$$

$$11) x^3 + 10x^2 - 5x$$

$$x(x^2 + 10x - 5)$$

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

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

$$13) -30m^5 + 54m^3 + 54m^2$$

$$-6m^2(5m^3 - 9m - 9)$$

$$14) 18v^4 + 27v^3 - 54v^2$$

$$9v^2(2v^2 + 3v - 6)$$

$$15) 5p^7 + 4p^4 + 6p^3$$

$$p^3(5p^4 + 4p + 6)$$

$$16) 14k^6 - 7k^5 + 7k$$

$$7k(2k^5 - k^4 + 1)$$

$$17) 3x(x + 4) - 5(x + 4)$$

$$(x + 4)(3x - 5)$$

$$18) 4x^2(5x - 6y) + 3y^2(5x - 6y)$$

$$(5x - 6y)(4x^2 + 3y^2)$$