(More) Factoring and Grouping

Name:_____

1. Find the greatest common factor.

(A) $4xy^2,\ 6y^3,\ 8x^2y$

(B) $12xy^5,\ 15x^2y^4,\ 6x^4y^3$

(C) $10xy^3,\ 14x^2y^2,\ 20x^4y^4$

2. Factor out the greatest common factor.

(A) $28x^{14} + 8x^8 + 20x^4$

(B) $8x^5y^5 + 6x^3y^6 + 12x^4y^2$

(C) $20x^2 + 10xy + 15y^2$

(D) $5x(x+2) - 2(x+2)$

(E) $(y-2) - 3x(2-y)$

(F) $4y(2x^2-3) + (3-2x^2)$

3. Factor by grouping.

(A) $x^2y + 5x^2 + 2y + 10$

(B) $3x^2y + 2xy + 15x + 10$

(C) $3xy - 2x - 6y + 4$

(D) $x^3 - 4x^2 + 3x - 12$

(E) $15 - 2x^3 + 3x^2 - 10x$

(F) $12 - 4x^3 - 2x^4 + 6x$