1. Find the GCF for each of the following sets of algebraic terms.
a) 30, 45, 75

b) 16, 28, & 40

c) $20a^2b^3$, $12ab^4$, and $8a^3b^2$

2. Factor the following completely.

a) 6n + 30

b) $x^3 + x$

c) $15x^3 - 20x^2$

d) $4y^2 + 14y + 6$

e) $18k^2 - 12k - 6$

f) $-4a^5 + 2a^3 - 6a^2$

g) $40x^2y^3 + 15x^3y^2 - 5xy$

h) $x^3y^5 + 3x^2y^3$

i) $10(y-1) + 5x(y-1)$

j) $9xy\ (m-4) + (m-4)$

Factoring by Grouping

_____ polynomials with four terms can be factored by grouping.

*Arrange the terms so that the first 2 terms have a common factor and the last 2 terms have a common factor

3. Factor by grouping.

a) $xy + 5x + 3y + 15$

b) $x^2 - xy - 5x + 5y$

c) 5xy + 6uv − 3vy − 10ux

d) 2x − 9y + 18 − xy