

COMMON FACTORING - GCF

GCF: _____ is the _____ factor
you can _____ **ALL** _____ in a _____ by.

The factor can be:

- _____, **or**
- _____, **or**
- _____

Examples: Find the GCF of:

a) 12 and 9

b) 4 and 6

c) x^2 and x^3

Factor each of the following by indicating the GCF

Example 1: $3x^2 + 6x - 36$

Step 1: Find the GCF

Step 2: Divide the trinomial by the GCF

Step 3: Check the solution (expand)

Example 2: $5x^5 + 15x^3 - 35x^4$

Step 1: Find the GCF

Step 2: Divide the trinomial by the GCF

Step 3: Check the solution (expand)

Example 3: Factor each of the following by a common factor.

a) $3x^2 + 21x + 30$

b) $4x^2 - 12x - 72$

c) $-x^2 + 4x - 3$

d) $2x^2 + 4x + 2$

e) $3x^2 + 21x + 30$

f) $4x^2 - 12x - 72$

Note: You can also have a binomial as a GCF.

Factor a) $2a(2+a) - 3(2+a)$

b) $2(x - 2) + 3x(x - 2)$