

Write each of the following as a product of their prime factors. Use the prime factors to determine the Greatest Common Factor.

Ie. Find the GCF for the following:

56	and	88
$= (8)(7)$		$= (8)(11)$
$= \underline{(2)(2)(2)}(7)$		$= \underline{(2)(2)(2)}(11)$

Therefore the greatest common factor is “8”

1. Find the greatest common factor of each set of terms.

a) 35, 75

b) $21x$, 60

c) 12, $8x$, $16x^2$

d) 36, $9x$, $18x^2$

Write the following in **Factored Form**. Ie. $16x + 24 = 8(2x+3)$

2. Using the greatest common factor, write the binomial in factored form.

a) $4x + 20$

b) $5x + 30x^2$

c) $12x^2 - 48x$

d) $21x^2 - 49x$

3. Factor each binomial completely (write in factored form). Watch the negative signs!

a) $-18x + 33$

b) $20x - 50x^2$

c) $-48x^2 - 63x$

d) $-36x^2 - 72x$

4. Factor each polynomial completely.

a) $4x^2 + 12x + 8$

b) $3x^2 + 6x - 9$

c) $5x^2 + 10x - 120$

d) $3x^2 - 36x + 105$

5. The area of a tennis court is represented by $60x^2 + 75x$. What are the dimensions of the tennis court?