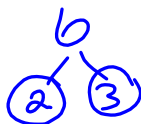


Do Now

Factor each number

1) $6 = 2 \cdot 3$



2) $63 = 3^2 \cdot 7$

or $3 \cdot 3 \cdot 7$

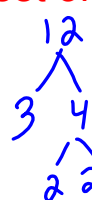
Find the GCF of each set of numbers

3) 12 & 16

GCF = 4

4) 6, 8, 12

GCF = 2



Apr 7-10:10 AM

Factors and Factoring

What is a Factor?

"Factors" are the terms we can **multiply together** to get another term

What is a GCF?

"Greatest Common Factors" are the **largest** terms that are factors of all other terms given

What is "Factoring"?

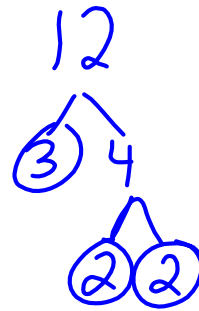
It means to write the given information as a product of two factors.

Jan 11-8:52 PM

Factoring a Monomial

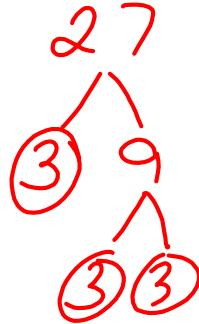
- $12ab^2$

$$2 \cdot 2 \cdot 3 \cdot a \cdot b \cdot b$$



- $27x^2y^3$

$$3 \cdot 3 \cdot 3 \cdot x \cdot x \cdot y \cdot y \cdot y$$



Apr 7-10:10 AM

Finding the GCF of Monomials

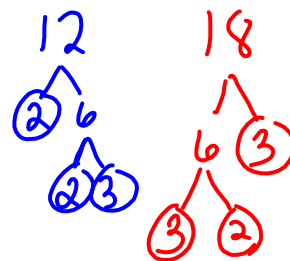
- Factor Each Monomial
 - Find the GCF of the Coefficients
 - Find the variables they have in common
- (Find the smallest exponent from each like variable)

Apr 17-6:58 AM

Ex. 1 Find the GCF of $12ab^2c$ & $18ac^3$

$$\begin{array}{r|l} 12ab^2c & 2 \cdot 2 \cdot 3 \cdot a \cdot b \cdot b \cdot c \\ 18ac^3 & 2 \cdot 3 \cdot 3 \cdot a \cdot c \cdot c \cdot c \end{array}$$

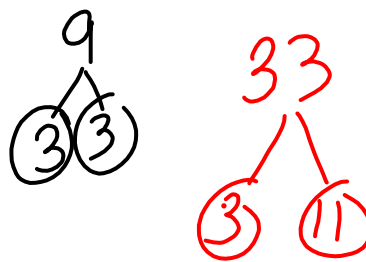
$$\text{GCF} = 6ac$$



Ex. 2 Find the GCF of $9x^3$ & $33x^2$

$$\begin{array}{r|l} 9x^3 & 3 \cdot 3 \cdot x \cdot x \cdot x \\ 3x^2 & 3 \cdot 11 \cdot x \cdot x \end{array}$$

$$\text{GCF} = 3x^2$$



Apr 7-10:10 AM

Ex. 3 Find the GCF $16r^4$ & $24t^2$

$$\begin{array}{r|l} 16r^4 & 2 \cdot 2 \cdot 2 \cdot 2 \cdot r \cdot r \cdot r \cdot r \\ 24t^2 & 2 \cdot 2 \cdot 2 \cdot 3 \cdot t \cdot t \end{array}$$

$$\text{GCF} = 8$$

Ex. 4 Find the GCF $8rta$, $6rtb$, $10rtc$

$$\begin{array}{r|l} 8rta & 2 \cdot 2 \cdot 2 \cdot r \cdot t \cdot a \\ 6rtb & 2 \cdot 3 \cdot r \cdot t \cdot b \\ 10rtc & 2 \cdot 5 \cdot r \cdot t \cdot c \end{array}$$

$$\text{GCF} = 2rt$$

Apr 7-10:10 AM