April 8, 2015

6.1 Factoring

$106 = 2 \cdot 53$ $40 = 2^3 \cdot 5$ $92 = 2^2 \cdot 23$

$106 \to (2) \cdot (53)$

$40 \to (2) \cdot 20 \to (2) \cdot 10 \to (2) \cdot (5)$

$92 \to (2) \cdot 46 \to (2) \cdot (23)$

GCF = $\boxed{2}$

Apr 8-9:07 AM

x^3 x^7 x^{10}

GCF = $\boxed{x^3}$ ← Smallest Exponent!

$\frac{x^3}{x^3} = 1$ $\frac{x^7}{x^3} = x^4$ $\frac{x^{10}}{x^3} = x^7$

Apr 8-9:13 AM

$a^2 b^3 c^4, a^6 b^3 c^6, a^4 b c^{10}$

GCF = $a^2 b c^4$

Apr 8-9:17 AM

$x^3 y^4 z^2, x y^6, x^8 y z^{12}$

GCF = $x y$

Apr 8-9:21 AM

$2x^4 + 6x^2$

GCF = $2x^2$

Apr 8-9:23 AM

$3a^2 + 12a$

$3 \to 1 \cdot (3)$ $12 \to (2) \cdot 6 \to (2) \cdot (3)$

$1 \cdot \boxed{3} \cdot \boxed{a} \cdot a + 2 \cdot 2 \cdot \boxed{3} \cdot \boxed{a} \cdot 1$

GCF = $3a$

Apr 8-9:26 AM

$14xy^2 - 4x^3y + 3x^4y$

GCF = xy

Apr 8-9:30 AM

GCF = y

$4y^2 - y$ Distributive Tool

$y(4y - 1)$

$4 \cdot y \cdot y - y$

$y(4y - 1)$

$\frac{4y^2}{y} = \frac{4 \cdot y \cdot y}{y} = 4y$

$-\frac{y}{y} = -1$

Apr 8-9:35 AM

$6x^3 - 2x^2 + 12x$

$2x(3x^2 - x + 6)$

$\frac{6x^3}{2x} = \frac{2 \cdot 3 \cdot x \cdot x}{2 \cdot x} = 3x^2$

$(2x)(3x^2) = 6 \cdot x^1 \cdot x^2$

$= 6 \cdot x^{1+2}$

$= 6x^3$

$\frac{12x}{2x} = \frac{2 \cdot 2 \cdot 3 \cdot x}{2 \cdot x}$

$= 6$

Apr 8-9:40 AM

$40x^{20}y^{15}z^{10} - 22x^{14}y^6z^2$

$2x^{14}y^6z^2(20x^6y^9z^8 - 11)$

$\frac{x^{20}}{x^{14}}$

Apr 8-9:48 AM

Do 6.1 #1 – #12

Fun - Friday

Apr 8-9:49 AM