

October 26, 2016

$$(-3x^8y^2)^4$$

$$(-3)^4 \cdot (x^8)^4 \cdot (y^2)^4$$

$81x^{32}y^8$

$$(-3)(-3)(-3)(-3)$$

$$9(-3)(-3)$$

$$-27(-3)$$

$$81$$

Oct 26-9:15 AM

\* Exam #2 - Wednesday  
November 2<sup>nd</sup>

Everything → now!

Oct 26-9:18 AM

Chapter 6 Factoring

6.1

↓ use of Distributive Tool

$$a(b+c) = ab + ac$$

(Chp 5)      (Chp 6)

Oct 26-9:19 AM

$24$   
 $\begin{matrix} \textcircled{2} & \cdot & 12 \\ & \textcircled{2} & \cdot & 6 \\ & & \textcircled{2} & \cdot & 3 \end{matrix}$

$152$   
 $\begin{matrix} \textcircled{2} & \cdot & 76 \\ & \textcircled{2} & \cdot & 38 \\ & & \textcircled{2} & \cdot & 19 \end{matrix}$

$$24 = \boxed{2 \cdot 2 \cdot 2} \cdot 3$$

$$152 = \boxed{2 \cdot 2 \cdot 2} \cdot 19$$

↓

8 ← Greatest Common Factor (Divisor) GCF

$$\frac{24}{8} = 3$$

$$\frac{152}{8} = 19$$

no remainder

$$24x + 152y$$

$$8(3x + 19y)$$

Oct 26-9:22 AM

GCF(360, 756) = 36

$360$   
 $\begin{matrix} \textcircled{2} & \cdot & 180 \\ & \textcircled{2} & \cdot & 90 \\ & & \textcircled{2} & \cdot & 45 \\ & & & \textcircled{3} & \cdot & 15 \\ & & & & \textcircled{3} & \cdot & 5 \end{matrix}$

$756$   
 $\begin{matrix} \textcircled{2} & \cdot & 378 \\ & \textcircled{2} & \cdot & 189 \\ & & \textcircled{3} & \cdot & 63 \\ & & & \textcircled{3} & \cdot & 21 \\ & & & & \textcircled{3} & \cdot & 7 \end{matrix}$

$$360 = \boxed{2} \cdot \boxed{2} \cdot 2 \cdot 3 \cdot 3 \cdot 5$$

$$756 = \boxed{2} \cdot \boxed{2} \cdot \boxed{3} \cdot \boxed{3} \cdot 3 \cdot 7$$

$$4 \cdot 9 = 36$$

Oct 26-9:30 AM

$$24 = \begin{cases} 1 \cdot 24 \\ 2 \cdot 12 \\ 3 \cdot 8 \\ 4 \cdot 6 \end{cases}$$

Oct 26-9:39 AM

GCF with Variables

$$x^2 \neq x^4$$

$$x^2 = \boxed{x} \cdot \boxed{x}$$

$$x^4 = \boxed{x} \cdot \boxed{x} \cdot x \cdot x$$

$x^2 = \text{GCF}$

$$x^2 + x^4$$

$$x^2(1 + x^2)$$

*\* Needs to be Relatively Prime (Common factor is 1)*

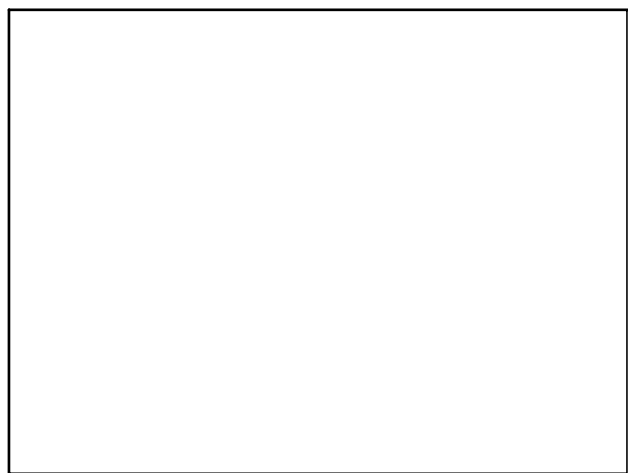
Oct 26-9:40 AM

$$\text{GCF}(x^4, x^6, x, x^3)$$

$$= x^1$$

$$\frac{x^4}{x} = x^3, \frac{x^6}{x} = x^5, \frac{x}{x} = 1, \frac{x^3}{x} = x^2$$

Oct 26-9:45 AM



Oct 26-9:48 AM