November 12, 2021

HW: Worksheet/6-30 even, 48, 50

Warm up

Reduce the following fractions completely.

1) $\frac{15}{10} = \frac{5 \cdot 3}{5 \cdot 2} = \frac{\cancel{5}}{\cancel{5}} \cdot \frac{3}{2}$

2) $\frac{27}{12} = \frac{3 \cdot 9}{3 \cdot 4} = \frac{9}{4}$

3) $\frac{14}{16} = \frac{2 \cdot 7}{2 \cdot 8} = \frac{7}{8}$

$$\frac{ab}{cd} = \frac{a}{c} \cdot \frac{b}{d}$$

$$\frac{ab}{ac} = \frac{b}{c}$$

November 12, 2021

$$\frac{x^5}{x^2} = \frac{x \cdot x \cdot x \cdot x \cdot x}{x \cdot x}$$

$$\Rightarrow \frac{x^3}{1} = x^3$$

$$\frac{x^3}{x^9} = \frac{1}{x^6}$$

$$\frac{x^4}{x^4} = \frac{1}{1} = 1$$

$$x^0 = 1$$

$$\frac{8}{8} = 1$$

$\frac{x^m}{x^n}$	
If m>n...	x^{m-n}
If m<n...	$\frac{1}{x^{n-m}}$
If m=n...	$\frac{x^m}{x^m}=1$

November 12, 2021

$$\frac{x^{x-5}}{x^{7}} = x^{x-12}$$

x-5-7

$$\frac{12x^7}{18x^2} = \frac{2x^5}{3}$$

$$\frac{42x^7y^9}{12x^{10}y^2} = \frac{7y^7}{2x^3}$$

Simplify.

1) $\dfrac{-28cd^3}{-21bd^2}$ $\dfrac{4cd}{3b}$

2) $\dfrac{xy^2z^3}{x^3y^2z}$ $\dfrac{z^2}{x^2}$

3) $\dfrac{(2ab)^2}{2ab^2}$ $= \dfrac{4a^2b^2}{2ab^2} = 2a$

4) $\dfrac{(-xy)^9}{xy^9}$ $= \dfrac{-x^9y^9}{xy^9} = -x^8$

$x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$

5) $\dfrac{36x^7y^{10}z^3}{60x^5y^5z^9}$ $\dfrac{3x^2y^5}{5z^6}$

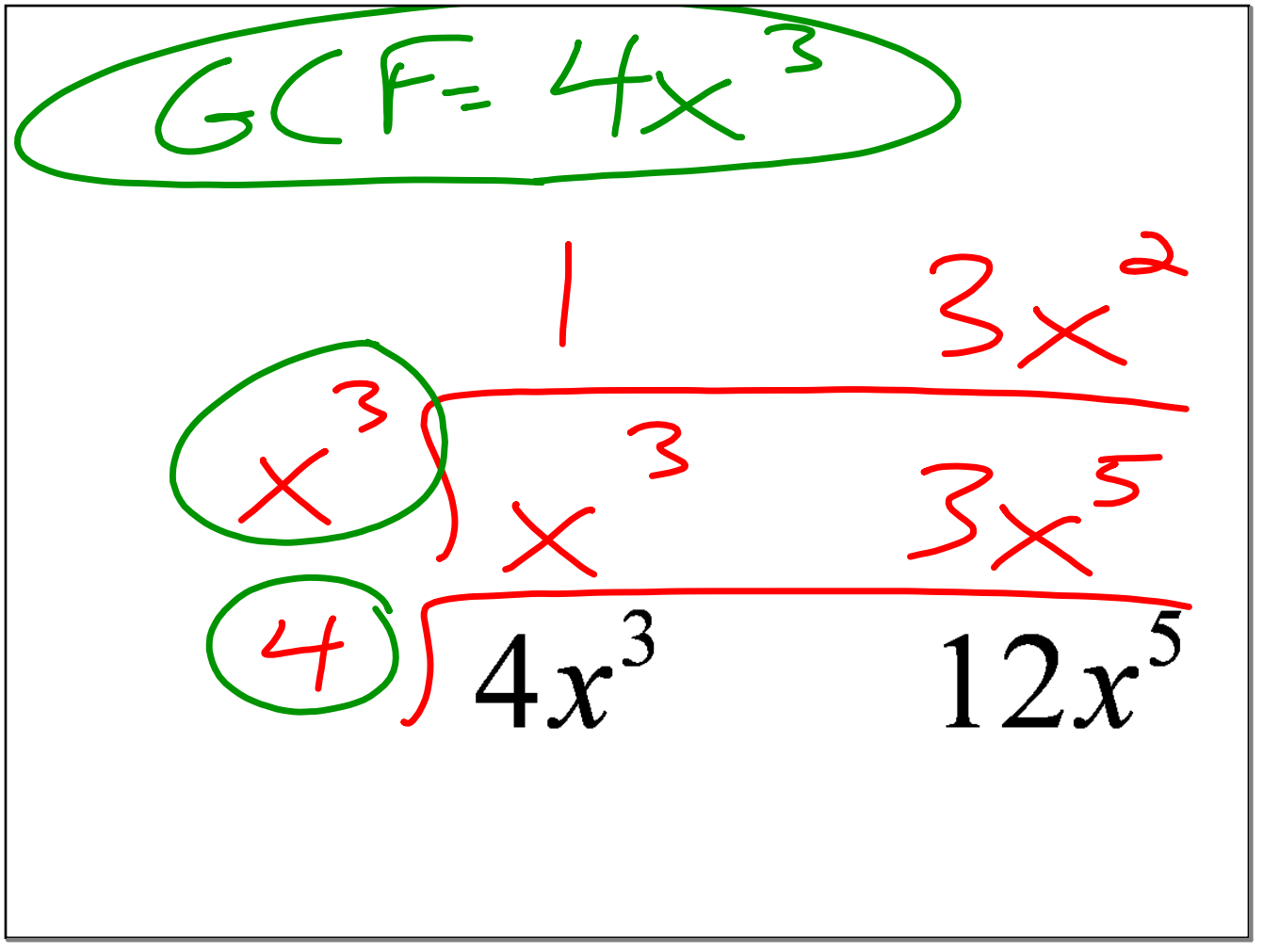
GCF

GCF = 4

4) 26 15
104 60

2) 26 15
2) 52 30
104 60

November 12, 2021



$3x^5y^2$

$\frac{x^7}{x^5} = x^2$

$$3x^5y^2 \overline{)\,6x^7y^2 \qquad 21x^5y^9}$$

$2x^2 \qquad 7y^7$

$11x^{20}y^{15}z^{12}$

$77x^{20}y^{15}z^{12}$

$11x^{40}y^{20}z^{52}$

$$\frac{x^4}{x^9} = \frac{1}{x^5}$$

GCF $= x^4$

$3x^4 \quad 5x^9$

Find the GCF:

$48a^2bc^3 \qquad 72ab^3c^2$

$24abc^2$

$25p^2q^3 \qquad 15p^2q^2 \qquad 35pq^4$

$5pq^2$

November 12, 2021