Do Now

1) $\frac{x^4}{x^5} = x^{-1} = \frac{1}{x^1}$

2) $x^{-5} \bullet x^8$

x^3

3) $\frac{2x^3y^4}{3xy} = \frac{2x^2y^3}{3}$

4) $\frac{4x^3y^3}{2x^3y^4} = 2y^{-1} = \frac{2}{y}$

5) $m^{-3} \bullet m^{-5} \bullet m^6$

$m^{-2} = \frac{1}{m^2}$

6) $\frac{16x^5y^8}{4x^7y^3} = 4x^{-2}y^5$

$\frac{4y^5}{x^2}$

Oct 23-11:49 AM

Homework Answers

1. $\frac{1}{x^4}$
2. y^2
3. $\frac{2}{z^4}$
4. -3
5. $\frac{-30}{a^3}$
6. $\frac{1}{a}$
7. $\frac{1}{b^7}$
8. $\frac{9}{2x^{10}}$
9. a^8
10. $\frac{63}{m^6}$

$7(3m^{-3})^2$

$7(3^2m^{-6})$

$7 \cdot 9m^{-6}$

$63m^{-6}$

$\frac{63}{m^6}$

Mar 2-6:59 AM

Exponent Practice

$$\frac{9x^5y^2 \bullet 2xz}{6x^3y^2z^4}$$

$$\frac{18x^6y^2z}{6x^3y^2z^4}$$

$$3x^3z^{-3}$$

$$\frac{3x^3}{z^3}$$

Jan 4-4:27 PM

Geometric Applications

What is the width of a rectangle whose area is represented by $42x^2$ and whose length is 6x?

$\boxed{A=42x^2}$?

$6x$

$A = LW$

$42x^2 = 6x \cdot ?$

$42x^2 = 6x \cdot 7x$

$W = \frac{42x^2}{6x}$

$W = 7x$

The area of a rectangle is $24x^4y^3$. Express, in terms of x and y, the length of the rectangle if the width is $3xy^2$.

$\boxed{A=24x^4y^3}$ $3xy^2$

$L = \frac{24x^4y^3}{3xy^2}$

$L = 8x^3y$

Oct 29-7:52 AM