

1. Simplify this complex rational expression:

$$\frac{\frac{7}{12b^3} + \frac{5}{8a^4b^2}}{\frac{1}{6a^3b} + \frac{11}{3ab^5}}$$

2. Solve this radical equation:

$$\sqrt{x+12} - 6 = x$$

1. Simplify this complex rational expression:

Lcm of all 4 denominators is $\frac{24a^4b^5}{1}$

$$\frac{\frac{7}{12b^3} + \frac{5}{8a^4b^2}}{\frac{1}{6a^3b} + \frac{11}{3ab^5}} \cdot \frac{24a^4b^5}{24a^4b^5}$$

$$\frac{7(2a^4b^2) + 5(3b^3)}{1(4ab^4) + 11(8a^3)}$$

=

$$\frac{14a^4b^2 + 15b^3}{4ab^4 + 88a^3}$$

2. Solve this radical equation:

$$\sqrt{x+12} - 6 = x$$

$$+6 +6$$

$$(\sqrt{x+12})^2 = (x+6)^2$$

$$\begin{array}{rcl} x+12 & = & x^2+12x+36 \\ -x-12 & & -x-12 \end{array}$$

$$0 = x^2 + 11x + 24$$

$$0 = (x+3)(x+8)$$

$$\begin{array}{cc} +24 & \\ +8 & +3 \\ +11 & \end{array}$$

$$x = -3, -8$$

$$x = -3$$