

3 ← coefficient
 X ← variable.
 2 ← exponent

p10 # 47-52

$$47) \frac{x^4 y^3}{x^2 y^5}$$

$$x^2 \cdot y^{-2} = \frac{x^2}{y^2}$$

$$49) \left(\frac{4}{x^2} \right)^2$$

$$\frac{16}{x^4}$$

$$16 \cdot \frac{1}{x^4}$$

$$51) \frac{(x^{-3} y^2)^{-4}}{(y^6 x^{-4})^{-2}}$$

$$48) \frac{(3x^2)^2 y^4}{3y^2}$$

$$\frac{9x^4 y^4}{3y^2} = 3x^4 y^2$$

$$50) \left(\frac{2}{xy} \right)^3$$

$$\left(\frac{xy}{2} \right)^3 = \frac{x^3 y^3}{8}$$

$$52) \left(\frac{4a^3 b}{a^2 b^3} \right) \left(\frac{3b^2}{2a^2 b^4} \right)$$

$$51) \frac{(x^{-3} y^2)^{-4}}{(y^6 x^{-4})^{-2}}$$

$$\frac{x^{12} y^{-8}}{y^{-12} x^8} = x^4 y^4$$

$$\frac{x^{12} y^{12}}{x^8 y^8}$$

$$52) \left(\frac{4a^3b}{a^2b^3} \right) \cdot \left(\frac{3b^2}{2a^2b^4} \right)$$

$$\frac{12a^3b^3}{2a^4b^7} = \frac{12}{2ab^4}$$

$$\boxed{\frac{6}{ab^4}}$$

$$\frac{6}{ab^4}$$

Exponent work sheet

17 $\left(\frac{4x^5y}{16xy^4} \right)^3 = \left(\frac{1x^5y}{4xy^4} \right)^3 = \frac{x^{15}y^3}{4^3x^3y^{12}}$

$= \frac{x^{12}}{64y^9}$

18) $\left(\frac{5x^3y}{20xy^5} \right)^4 = \left(\frac{x^3y}{4xy^5} \right)^4 = \frac{x^{12}y^4}{4^4x^4y^{20}}$

$= \frac{1 \cdot x^8}{4 \cdot y^{16}}$