

Simplifica las expresiones con exponentes y radicales

$$1.) (x^3)(x^2) = x^5$$

$$2.) (4a^2)(5a^6) = 20a^8$$

$$3.) (2k^4)(-k^2)(5k^7) = -10k^{13}$$

$$4.) (8ab^3)\left(\frac{3}{4}a^2b\right) = 6a^3b^4$$

$$5.) \left(\frac{6}{5}p^3q^5\right)\left(-\frac{8}{4}p^6q^4\right)\left(\frac{1}{12}q\right) = -\frac{1}{5}p^9q^{10}$$

$$6.) \left(\frac{-27y^9z^6}{3y^4z^2}\right)^2 = 81y^{10}z^8$$

$$7.) \left(\frac{3x}{y}\right)^4 = \frac{81x^4}{y^4}$$

$$8.) \frac{x^2}{x^2} = 1$$

$$9.) 5a^0 = 5$$

$$10.) (xyz)^0 = 1$$

$$11.) x^{-1} = \frac{1}{x}$$

$$12.) 6a^{-3} = \frac{6}{a^3}$$

$$13.) 2^{-4}x^{-12} = \frac{1}{16x^{12}}$$

$$14.) \sqrt[12]{x^9} = x^{\frac{9}{12}}.$$

$$15.) x^{\frac{3}{4}} = \sqrt[4]{x^3}.$$

$$16.) \sqrt[5]{x^{10}} = x^2$$

$$17.) \sqrt{63} = 3\sqrt{7}$$

$$18.) \frac{2}{\sqrt{3}-\sqrt{2}} = 2(\sqrt{3}+\sqrt{2})$$

$$19.) \frac{2x}{\sqrt{ax}} = \frac{2\sqrt{ax}}{a}$$