

Negative exponents review

1. Simplify the following and leave answer in positive exponential form:

a. 2^{-1}

b. x^{-2}

c. $x^2 \times x^{-5}$

d. $\frac{x^2y^3}{x^{-3}y}$

e. $(3x^2y^3)^{-2}$

f. $(3a^4b)^{-3}(3ab^2)^2$

g. $(x^{-3}y)^{-1}$

h. $(a^2b^{-3})(a^{-2}b)$

i. $\frac{5x^2y^{-2}}{25x^{-3}y}$

j. $\frac{(2x^{-3}y)^2}{(2xy^{-3})^3}$

k. $(5x^2y^3)(3x^{-2}y^{-3})$

l. $\frac{(7t^3s^{-2})^{-2}(7t^2s^5)^2}{7ts^6}$

2. Evaluate the following:

a. $(2^{-7} \times 2^{10}) - 8$

b. $(3^2)^{-1} - (3^2 - 1) + (-3^{90})^0$

c. $\left[-\frac{2}{2^{-2}}\right]^2 - \left[\frac{2^{-2}}{2^2}\right]^{-1}$

Negative exponents review

1. Simplify the following and leave answer in positive exponential form:

a. 2^{-1}

$$\frac{1}{2}$$

b. x^{-2}

$$\frac{1}{x^2}$$

c. $x^2 \times x^{-5}$

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

d. $\frac{x^2y^3}{x^{-3}y}$

$$x^5 y^2$$

e. $(3x^2y^3)^{-2}$

$$\frac{1}{9x^2y^6}$$

f. $(3a^4b)^{-3}(3ab^2)^2$

$$\frac{b}{3a^{10}}$$

g. $(x^{-3}y)^{-1}$

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

h. $(a^2b^{-3})(a^{-2}b)$

$$\frac{1}{b^2}$$

i. $\frac{5x^2y^{-2}}{25x^{-3}y}$

$$\frac{x^5}{5y^3}$$

j. $\frac{(2x^{-3}y)^2}{(2xy^{-3})^3}$

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

k. $(5x^2y^3)(3x^{-2}y^{-3})$

$$15$$

or 3×5

l. $\frac{(7t^3s^{-2})^{-2}(7t^2s^5)^2}{7ts^6}$

$$\frac{5^8}{7t^3}$$

2. Evaluate the following:

a. $(2^{-7} \times 2^{10}) - 8$

0

b. $(3^2)^{-1} - (3^2 - 1) + (-3^{90})^0$

$-6\frac{8}{9}$

c. $\left[-\frac{2}{2^{-2}}\right]^2 - \left[\frac{2^{-2}}{2^2}\right]^{-1}$

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