

Math 10C

Name: _____

Law of Exponents

Date: _____

a) $(3a^2b^3)^2$

b) $\left(\frac{4a}{5b}\right)^2$

c) $\left(\frac{16a^2b^5}{20ab^3}\right)^3$

d) $\left(-\frac{3a}{2b}\right)^0$

e) $\left(\frac{5a^5}{25a^6}\right)^2$

f) $(7a^2b^5)(-3ab^6)$

$$g) \frac{(2a)^3}{(6ab)^{-2}}$$

$$h) \frac{10a^7b^9c^6}{5a^6b^{10}c^8}$$

$$i) \frac{-3a^{-7}b^{-11}}{12a^4b^{-3}}$$

$$j) \left(\frac{4a^2b^3}{8ab^5}\right)^{-2}$$

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Fractional Exponents

Name: _____

1. $(25 a^4 b^2)^{\frac{1}{2}}$

2. $(8a^3 b^6)^{\frac{1}{3}}$

3. $\left(\frac{25p^8 q^{-2}}{49 p^4 q^4}\right)^{\frac{1}{2}}$

4. $\left(\frac{50x^2 y^4}{2x^4 y^8}\right)^{\frac{1}{2}}$

5. A cube has a volume of 200 cm^3 . Write the edge length of the cube as radical in simplest form. $V = lwh$ or $V = l^3$ Express your answer as $a\sqrt{b}$.

6. Determine the **edge length** of a square that has an area of 529 cm^2 . Express your answer as a mixed radical in lowest terms. $A = l^2$