

Laws of Exponents Worksheet:

- 1) Simplify by applying the Laws of Exponents.
Write the results with positive exponents.
No Decimal Answers.

$$\left(\frac{-5x^{-2}y^8}{10x^{10}y^{-4}} \right)^{-4}$$

- 2) Evaluate. Write the answer in scientific notation and in decimal notation.

$$\frac{(8 \times 10^6)(2 \times 10^{-2})}{(4 \times 10^2)}$$

a) Scientific notation:

b) Decimal notation :

- 3) The mass of Earth is 5.98×10^{24} kg. The mass of the dwarf planet Pluto is about 0.002 times the mass of the Earth. What is the mass of Pluto?

- Write an algebraic expression to find the mass.
- Evaluate the expression and write the result in scientific notation.
- Write a well-structured sentence with units correctly stated