

1. Complete the tables.

2^4	2^3	2^2	2^1	2^0	2^{-1}	2^{-2}	2^{-3}	2^{-4}
			2			$\frac{1}{4}$		

81	27	9	3	1	$\frac{1}{3}$	$\frac{1}{9}$	$\frac{1}{27}$	$\frac{1}{81}$
	3^3				3^{-1}			

2. Insert $<$, $>$ or $=$ to make a true statement:

1^4 ____ 2^0

4^{-1} ____ $(-1)^4$

$(-2)^2$ ____ 2^{-2}

$(2+4)^2$ ____ 2^2+4^2

3. Simplify:

$x^4 \cdot x^3 =$

$(x^4)^3 =$

$\frac{x^3}{x^4}$

=

$(4x)^{-3} =$

4. Evaluate when $a = 3$ and $b = -5$

$a + b^2$

$(a + b)^2$

$a^2 + b^{-2}$

$(2 a b)^2$

5. Write 42,800,000 in scientific notation.

Write 2.5×10^{-4} in standard number form.

6. Each day 2.6×10^7 pounds of dust from the atmosphere settles on the earth. Write the amount of dust in standard numerical form.
