M1L3 - Exponents

Sept. 15, 2020

AP

They will need 3,150 tiles to complete the mosaic.

$31.5 \times 100 = x$

ht	tt	t	h	t	o	tth
				3	1	5
		3	1	5	0	

1,000,000	100,000	10,000	1000	100	10
10×10×10 ×10×10×10	10×10×10 ×10×10	10×10× 10×10	10×10×10	10 × 10	10 × 1
10^6	10^5	10^4	10^3	10^2	10^1

Exponents: how many times we use a number multiplied by itself.
"The power of . . ."

1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
						3	.	4		
			3	4	0	0	.			
						7	.	1		
						0	.	0	7	1

millions through thousandths place value chart

$3 \times 10^2 =$
$3 \times (10 \times 10)$
$3 \times 100 = 300$

3.4×10^3
$3.4 \times 1000 = 3400$

$700 \div 10^2 =$
$700 \div 100 = 7$

$7.1 \div 10^2$
$7.1 \div 100 = 0.071$

0.043 4.3 430 43,000 4,300,000 430,000,000

$\times 100$ $\times 10^2$

6,300,000 63,000 630 6.3 0.063

$\div 100$ $\div 10^2$