

**Prealgebra:
Scientific Notation**

Name: _____

Scientific Notation: A way of writing numbers:

- 1.) Can be positive or negative.
- 2.) Number must be:
- 3.) Always X

Circle the numbers below that are in scientific notation.

- | | | |
|-----------------------------|----------------------------|------------------------------|
| (A) 2.74×10^4 | (F) 5.67×10^{48} | (K) 2.34×10^5 |
| (B) 33×10^{-2} | (G) 0.95×10^{-11} | (L) 87.74×10^{-100} |
| (C) 9.92×10^{-270} | (H) 7.74×10^{-8} | (M) -8.74×10^{-10} |
| (D) 3.84×10^3 | (I) -5.76×10^9 | (N) 1.23×10^5 |
| (E) 1.76×10^{22} | (J) 13×10^2 | (O) 12 |
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Converting to and from Scientific Notation:

Move decimal LEFT -> _____ **exponent**

Move decimal RIGHT -> _____ **exponent**

Convert out of Scientific Notation

Convert into Scientific Notation

1.) 3.14×10^2

1.) 0.000234

2.) 2.74×10^4

2.) 175,000,000

3.) 5.64×10^{-3}

3.) 0.00000007

4.) 3.867×10^5

4.) 25,000,000,000,000

Prealgebra:
Scientific Notation
5 Practice OGT Problems

Name: _____

1.) Which of the following is equal to 7,170,000,000 in scientific notation?

- (A) 717×10^7 (B) 7.17×10^9 (C) 7.17×10^{-9} (D) 71.7×10^8

2.) Which of the following is equal to 0.0044 in scientific notation?

- (A) 0.44×10^3 (B) 4.4×10^3 (C) 4.4×10^{-3} (D) 44×10^4

3.) What is the value of 6.33×10^5 ?

- (A) 6335 (B) 633,000 (C) 0.0000633 (D) 63,300,000

4.) What is the value of 5.55×10^{-3} ?

- (A) 5,550 (B) 0.555 (C) 0.00555 (D) 0.000555

5.) What is the value of 456,700,000 in scientific notation?

- (A) 4.567×10^6 (B) 4.567×10^8 (C) 456.7×10^6 (D) 4567×10^5

6.***) If $225 < x < 256$, what must be true about \sqrt{x} ??

- (A) $50625 < \sqrt{x} < 65536$ (C) $15 < \sqrt{x} < 16$
(B) $112.5 < \sqrt{x} < 128$ (D) $225 < \sqrt{x} < 256$