

Scientific Notation \leftrightarrow Standard Form ^{9/28}

Scientific Notation- Is used to represent
either really big or
really small numbers ($\times 10$)

5.89 trillion (inches from Earth \rightarrow Sun)

5,890,000,000,000 \leftarrow standard form

5.89×10^{12} \leftarrow Scientific Notation

Sep 24-9:22 AM

Rules

SN \rightarrow Standard form

Positive Exponents Move decimal Right
(Make # Bigger)

Negative Exponents Move decimal left
(Make # Smaller)

* The Number being multiplied by 10 MUST
be between 1 and 10, but less than 10.

Sep 24-9:30 AM

<p>Scientific Notation to Standard Form</p>	<p>Standard form to Scientific Notation</p>
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Sep 23-8:57 AM

Positive exponent →
Move decimal to the
Right.

Negative exponent →
Move decimal to the
Left.

Think of number line

Move decimal to make
number being
multiplied by 10
greater than or equal to
one but less than 10.

Start as whole number
→ Positive Exponent

Start as decimal →
Negative Exponent

Sep 23-7:35 AM

SN \rightarrow SF	SF \rightarrow SN
① $4 \times 10^{\boxed{5}}$ $\underline{400000} = 400,000$	① $\underline{45,000,000}$ $\underline{4.5} \times 10^{\boxed{7}}$
② 4.2×10^5 $\underline{420000} = 420,000$	② $\underline{0.000051}$ $\underline{5.1} \times 10^{\boxed{-5}}$
③ 4.12×10^{-3} $\underline{.00412} = 0.00412$	

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Write in Standard Form

① $\underline{3.5} \times 10^{\boxed{3}}$ $\underline{3.500}$ $\boxed{3,500}$	② $\underline{4.76} \times 10^5$ $\underline{4.76000}$ $476,000.$
③ $\underline{3.5} \times 10^{\boxed{-3}}$ $\underline{.0035}$ 0.0035	④ 4.76×10^{-5} $\underline{.0000476}$ 0.0000476

Sep 24-9:34 AM

Write in Scientific Notation

① $3,400,000$
 3.4×10^6

② $4,750,000,000$
 4.75×10^9

③ 0.00034
 3.4×10^{-4}

④ 0.00000475
 4.75×10^{-6}

Sep 24-9:41 AM