

Scientific Notation to Standard Form

Change the following from scientific notation to standard form.

1) 1.62×10^4 _____

2) 1.347×10^8 _____

3) 9.124×10^2 _____

4) 2.791×10^5 _____

5) At one point, the distance from the Earth to the moon is 1.513431×10^{10} in. Write this number in standard form. _____

Standard Form to Scientific Notation

- Determine the first factor (remember it must be a whole number between 1 and 9!)
- Write the second factor as a power of 10

Change the following from standard form to scientific notation.

1) 1378 _____

2) 786,175 _____

2) 5,671,843,193 _____

4) 34,875 _____

5) 84 _____

6) 379 _____

7) The diameter of the planet Jupiter is about 142,800 km. Write this number in scientific notation. _____

Ordering Numbers in Scientific Notation

- Look at their exponents – put in order from least to greatest
- Compare any factors with the same power of 10 – put in order from least to greatest

1) Order this set of numbers from least to greatest.

5.6×10^{10}

5.6×10^{21}

6.2×10^{10}

9.2×10^{15}

2) Order the planets from least to greatest in size according to these diameters (in km).

Mars: 6.794×10^3

Mercury: 4.88×10^3

Saturn: 1.2×10^5

Neptune: 4.86×10^4

3) Which is greater? 1.4×10^5 or 9.8×10^4 . Explain.