

Math 9 – Scientific Notation Assignment

Name: KEY
Date: _____

Put the following numbers into scientific notation.

- 243 2.43×10^2
- 0.0045 4.5×10^{-3}
- 123 000 1.23×10^5
- 240 000 000 2.4×10^8
- 125 000 000 000 1.25×10^{11}
- 0.000 000 756 7.56×10^{-7}
- 6 6×10^0
- 100 1×10^2
- 0.000874 8.74×10^{-4}
- 10 1×10^1
- 656.12 6.5612×10^2
- 34.52 3.452×10^1
- 360.2 3.602×10^2
- 0.0000035 3.5×10^{-6}
- 12.33 1.233×10^1
- 0.022 2.2×10^{-2}
- 32 3.2×10^1
- 0.978 9.78×10^{-1}

Put the following in standard notation.

- 4.56×10^4 45600
- 3.4×10^{-1} 0.34
- 2.135×10^7 21350000
- 6.3×10^{-6} 0.0000063
- 5.3×10^0 5.3
- 1.002×10^2 100.2
- 4.12×10^{-9} 0.0000000412
- 6.5308×10^3 6530.8
- 1.0×10^1 10
- 1.0×10^{-1} 0.1
- 8.7×10^{-4} 0.00087
- 2×10^{-5} 0.00002

Evaluate using your calculator.

- $(2.45 \times 10^5) \times (1.2 \times 10^2)$ 2.94×10^7
- $(5.98 \times 10^9) \div (7.88 \times 10^6)$ 7.59×10^2
- $(3 \times 10^4) + (5 \times 10^3)$ 3.5×10^4
- $(6.2 \times 10^6) - (9.8 \times 10^5)$ 5.22×10^6
- $(4.33 \times 10^2)(6.67 \times 10^4)$ 2.89×10^7
- $\frac{(8.13 \times 10^7)}{(6.5 \times 10^3)} = 1.25 \times 10^4$

Do some research to answer the following:

- Find the distance (in km) in scientific notation from the earth to Pluto (closest distance). $4\ 280\ 000\ 000 = 4.28 \times 10^9 \text{ km}$

- Find the radius (in m) in scientific notation of a hydrogen atom.

$$53 \text{ pm} = 53 \times 10^{-12} \text{ m} = 5.3 \times 10^{-11} \text{ m}$$