1. Convert the scientific notation to a number.

$1 \times 10^0 =$ 1

$1 \times 10^1 =$ 10

$1 \times 10^2 =$ 100

$1 \times 10^3 =$ 1,000

$1 \times 10^4 =$ 10,000

$1 \times 10^5 =$ 100,000

$1 \times 10^6 =$ 1,000,000

$1 \times 10^7 =$ 10,000,000

$1 \times 10^8 =$ 100,000,000

$1 \times 10^9 =$ 1,000,000,000

$1 \times 10^{12} =$ 1,000,000,000,000

2. Convert the scientific notation to a number.

$1 \times 10^{-6} =$ 0.000001 one millionth
(x 1 2 3 4 5 6)

$1 \times 10^{-5} =$ 0.00001

$1 \times 10^{-4} =$ 0.0001

$1 \times 10^{-3} =$ 0.001 thousandth

$1 \times 10^{-2} =$ 0.01

$1 \times 10^{-1} =$ 0.1

$1 \times 10^{0} =$ 1

3. Convert the scientific notation to a number.

$7 \times 10^{3} =$ 7,000
(1000)

$-4 \times 10^{6} =$ -4,000,000
(mil)

$3 \times 10^{-1} =$ 0.3

$-6 \times 10^{-3} =$ -0.006
(1 2 3)

4. Convert the number to scientific notation.

$1{,}000 = 1 \times 10^{3}$

1000

$5{,}000 = 5 \times 10^{3}$

$70 = 7 \times 10^{1}$

$-700 = -7 \times 10^{2}$

$-8{,}000{,}000 = -8 \times 10^{6}$

$60{,}000{,}000 = 6 \times 10^{7}$

$0.3 = 3 \times 10^{-1}$

$0.0004 = 4 \times 10^{-4}$

$1\ 2\ 3\ 4$

$0.03 = 3 \times 10^{-2}$

$10 = 1 \times 10^{1}$

$1 = 1 \times 10^{0}$

1

5. Convert the scientific notation to a number.

$1.234 \times 10^3 =$ 1,234 (1000)

$5.678 \times 10^3 =$ 5,678

$-7.8 \times 10^1 =$ −78

$-7.89 \times 10^2 =$ −789

$-8.9 \times 10^6 =$ −8,900,000

$6.789 \times 10^7 =$ 67,890,000 (4 zeros)

$3.4 \times 10^{-1} =$ 0.34

$4.56 \times 10^{-4} =$ 0.000456 (1 2 3 4)

$3.4 \times 10^{-2} =$ 0.034

$1.2 \times 10^1 =$ 12

$6.022 \times 10^{23} =$ 602,200,000,000,000,000,000,000 (20 zeros; 23)

6. Convert the number to scientific notation.

$1{,}234 = 1.234 \times 10^{3}$

$5{,}678 = 5.678 \times 10^{3}$

$-78 = -7.8 \times 10^{1}$

$-789 = -7.89 \times 10^{2}$

$-8{,}900{,}000 = -8.9 \times 10^{6}$

$67{,}890{,}000 = 6.789 \times 10^{7}$

$0.34 = 3.4 \times 10^{-1}$

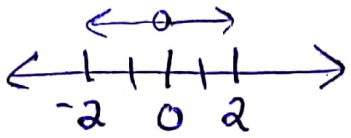
$0.000456 = 4.56 \times 10^{-4}$ (1 2 3 4)

$0.034 = 3.4 \times 10^{-2}$

$12 = 1.2 \times 10^{1}$

$1.2 = 1.2 \times 10^{0}$

1



7.

$|2| = 2$ $\quad |-2| = 2$

Absolute value (+)

$|3| = 3$ $\quad |-3| = 3$

$|4| = 4$ $\quad |-4| = 4$

$|5-2| = 3$ $\quad |2-5| = 3$

$3 \quad -3$

$|9-4| = 5$ $\quad |4-9| = 5$

$5 \quad (-5)$

million

$|1\times10^6 - 1| = 999{,}999$ $\quad |1 - 1\times10^6| = 999{,}999$

$1{,}000{,}000 - 1 \quad -999{,}999$

8. The absolute value of some number, call it "x," is 5.

What are the possible values for mystery number "x?"

$|x| = 5$ $\quad |?| = 5$

$X = 5$ or -5

$|5| = 5$

$|-5| = -5$

9.

$\sqrt{1} = \sqrt{1^2} = 1$ $\quad \sqrt{9} = \pm 3$ $\quad \sqrt{100} = \pm 10$

$(-1)^2 = 1$ $\quad 1$ or -1 $\quad 3$ or -3 $\quad 10^2 = 100$

± 1

$\sqrt{4} = \pm 2$ $\quad \sqrt{25} = \pm 5$ $\quad \sqrt{10{,}000} = \pm 100$

$2^2 = 4$ $\quad 5^2 = 25$ $\quad (100)(100)$