

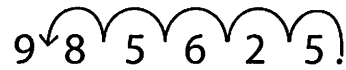
Name : _____

Score : _____

Scientific Notation (A)

Example:

Write 985625 in scientific notation.



We should move the decimal point 5 places to the left. So, the exponent will be 5.

$$985,625 = 9.85625 \times 10^5$$

Express each number in scientific notation.

1) 7,250,000,000 = _____

2) 872,000,000,000,000 = _____

3) 110,000,000 = _____

4) 90,500,000,000 = _____

5) 28,189,000,000,000 = _____

6) 5,620,000 = _____

7) 874,020,000,000 = _____

8) 14,000,000 = _____

9) 7,586,000,000,000,000 = _____

10) 4,460,500,000,000 = _____

Scientific Notation (B)

Example:

Write 0.000000743 in scientific notation.

We should move the decimal point 7 places to the right. So, the exponent will be -7.

$$\begin{array}{ccccccccccc}
 0 & . & 0 & 0 & 0 & 0 & 0 & 0 & 7 & 4 & 3 \\
 \uparrow & & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \downarrow & & \\
 \text{0.000000743} & = & 7.43 & \times & 10^{-7}
 \end{array}$$

Express each number in scientific notation.

1) 0.00000000000034 = _____

2) 0.0000000408 = _____

3) 0.0000000000000092 = _____

4) 0.0000002726 = _____

5) 0.0000000000000517 = _____

6) 0.0000045 = _____

7) 0.0000002149 = _____

8) 0.00000000623 = _____

9) 0.000000000000028 = _____

10) 0.000000001 = _____

Scientific Notation



Example: 1

Write 324, 170 in scientific notation.

3 2 4 1 7 0

We should move the decimal point 5 places to the left. So, the exponent will be 5.

$$324, 170 = 3.2417 \times 10^5$$

Example: 2

Write 0.0000032 in scientific notation.

0.0 0 0 0 0 3 2

We should move the decimal point 6 places to the right. So, the exponent will be -6.

$$0.0000032 = 3.2 \times 10^{-6}$$

Express each number in scientific notation.

1) 0.000037 = _____

2) 5,725,000,000 = _____

3) 0.00000004259 = _____

4) 100,020 = _____

5) 0.000000000000081 = _____

6) 785,120,000 = _____

7) 0.00000956 = _____

8) 20,000,000,000 = _____

9) 0.00000001256 = _____

10) 2,915,000 = _____

Scientific Notation (D)Example:

Write 2.97853×10^5 in standard notation.

Here the exponent is 5. We should move the decimal point 5 places to the right.

2.97853
2.97853

$$2.97853 \times 10^5 = 297,853$$

Express each number in standard notation.

1) 5.2564×10^9 = _____

2) 9.42×10^7 = _____

3) 3.6653×10^{13} = _____

4) 7.987×10^{15} = _____

5) 6.2×10^9 = _____

6) 2.5856×10^8 = _____

7) 4.002×10^{12} = _____

8) 1.25×10^{11} = _____

9) 9.5269×10^6 = _____

10) 3.415×10^{12} = _____

Name : _____

Score : _____

Scientific Notation

(E)

Example: 1

Write 1.0653×10^5 in standard notation.

Here the exponent is 5. We should move the decimal point 5 places to the right.

1.06530

$$1.0653 \times 10^5 = 106,530$$

Example: 2

Write 7.6×10^{-5} in standard notation.

Here the exponent is -5. We should move the decimal point 5 places to the left.

0.000076

$$7.6 \times 10^{-5} = 0.000076$$

Express each number in standard notation.

1) 3.012×10^{-11} = _____

2) 8.1516×10^8 = _____

3) 2.21×10^{-7} = _____

4) 9.5096×10^{13} = _____

5) 6.7×10^{-14} = _____

6) 2.931×10^{10} = _____

7) 1.19×10^{-9} = _____

8) 7.182×10^6 = _____

9) 4.2500×10^{-13} = _____

10) 2.57×10^{-8} = _____

Name : _____

Score : _____

Scientific Notation

F

Express each number in scientific notation.

1) 0.00000927 = _____

2) $85,000,000$ = _____

3) $4,202,100$ = _____

4) 0.0000000000037 = _____

5) $1,000,000,000$ = _____

Express each number in standard notation.

6) 6.024×10^{-13} = _____

7) 2.13×10^{11} = _____

8) 1.2×10^{-8} = _____

9) 3.7×10^{-9} = _____

10) 5.002×10^6 = _____