

Name : 1

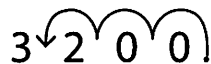
Score : _____

Answer key**Scientific Notation**

Positive: ES1

Example:

Write 3, 200 in scientific notation.



We should move the decimal point 3 places to the left. So, the exponent will be 3.

$$3,200 = 3.2 \times 10^3$$

Express each number in scientific notation.

1) 625 = 6.25×10^2

2) 4,216 = 4.216×10^3

3) 49,603 = 4.9603×10^4

4) 25 = 2.5×10

5) 18,569 = 1.8569×10^4

6) 836 = 8.36×10^2

7) 9,364 = 9.364×10^3

8) 34,121 = 3.4121×10^4

9) 22 = 2.2×10

10) 912 = 9.12×10^2

11) 7,350 = 7.35×10^3

12) 4,874 = 4.874×10^3

13) 62,503 = 6.2503×10^4

14) 13,058 = 1.3058×10^4

Name : 2

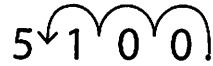
Score : _____

Answer key**Scientific Notation**

Positive: ES2

Example:

Write 5,100 in scientific notation.



We should move the decimal point 3 places to the left. So, the exponent will be 3.

$$5,100 = 5.1 \times 10^3$$

Express each number in scientific notation.

1) $41,214 = 4.1214 \times 10^4$

2) $5,256 = 5.256 \times 10^3$

3) $6,142 = 6.142 \times 10^3$

4) $915 = 9.15 \times 10^2$

5) $32,514 = 3.2514 \times 10^4$

6) $36 = 3.6 \times 10$

7) $1,490 = 1.49 \times 10^3$

8) $12,568 = 1.2568 \times 10^4$

9) $82 = 8.2 \times 10$

10) $62,569 = 6.2569 \times 10^4$

11) $27,254 = 2.7254 \times 10^4$

12) $87,200 = 8.72 \times 10^4$

13) $62,503 = 6.2503 \times 10^4$

14) $4,003 = 4.003 \times 10^3$

Name : 3

Score : _____

Answer key**Scientific Notation**

Positive: MS1

Example:

Write 324, 170 in scientific notation.



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

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

Express each number in scientific notation.

1) 2, 343, 600 = 2.3436×10^6

2) 512, 420, 000 = 5.1242×10^8

3) 4, 600, 000, 000, 000 = 4.6×10^{12}

4) 725, 000, 000 = 7.25×10^8

5) 120, 000, 000, 000, 000 = 1.2×10^{14}

6) 100, 180, 000, 000 = 1.0018×10^{11}

7) 81, 000, 000 = 8.1×10^7

8) 14, 752, 000, 000 = 1.4752×10^{10}

9) 29, 540, 000, 000, 000 = 2.954×10^{13}

10) 6, 241, 000, 000 = 6.241×10^9

Name : 184

Score : _____

Answer key

Scientific Notation

Positive: MS2

Example:

Write 985,625 in scientific notation.

9 8 5 6 2 5

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 = 7.25×10^9

2) 872,000,000,000,000 = 8.72×10^{14}

3) 110,000,000 = 1.1×10^8

4) 90,500,000,000 = 9.05×10^{10}

5) 28,189,000,000,000 = 2.8189×10^{13}

6) 5,620,000 = 5.62×10^6

7) 874,020,000,000 = 8.7402×10^{11}

8) 14,000,000 = 1.4×10^7

9) 7,586,000,000,000,000 = 7.586×10^{15}

10) 4,460,500,000,000 = 4.4605×10^{12}

Scientific Notation

Negative: ES1

Example:

Write 0.0061 in scientific notation.



We should move the decimal point 3 places to the right. So, the exponent will be -3.

$$0.0061 = 6.1 \times 10^{-3}$$

Express each number in scientific notation.

1) $0.0736 = 7.36 \times 10^{-2}$

2) $0.0092 = 9.2 \times 10^{-3}$

3) $0.0005 = 5 \times 10^{-4}$

4) $0.021 = 2.1 \times 10^{-2}$

5) $0.00862 = 8.62 \times 10^{-3}$

6) $0.000572 = 5.72 \times 10^{-4}$

7) $0.026 = 2.6 \times 10^{-2}$

8) $0.8599 = 8.599 \times 10^{-1}$

9) $0.152 = 1.52 \times 10^{-1}$

10) $0.00589 = 5.89 \times 10^{-3}$

11) $0.004526 = 4.526 \times 10^{-3}$

12) $0.00067 = 6.7 \times 10^{-4}$

13) $0.089 = 8.9 \times 10^{-2}$

14) $0.18 = 1.8 \times 10^{-1}$

Name : 6

Answer key

Score : _____

Scientific Notation

Negative: ES2

Example:

Write 0.82 in scientific notation.

$$0.82$$


We should move the decimal point 1 place to the right. So, the exponent will be -1.

$$0.82 = 8.2 \times 10^{-1}$$

Express each number in scientific notation.

1) $0.052 = 5.2 \times 10^{-2}$

2) $0.0730 = 7.3 \times 10^{-2}$

3) $0.0023 = 2.3 \times 10^{-3}$

4) $0.96 = 9.6 \times 10^{-1}$

5) $0.9142 = 9.142 \times 10^{-1}$

6) $0.0082 = 8.2 \times 10^{-3}$

7) $0.074 = 7.4 \times 10^{-2}$

8) $0.0009 = 9 \times 10^{-4}$

9) $0.803 = 8.03 \times 10^{-1}$

10) $0.0071 = 7.1 \times 10^{-3}$

11) $0.0005 = 5 \times 10^{-4}$

12) $0.085 = 8.5 \times 10^{-2}$

13) $0.00492 = 4.92 \times 10^{-3}$

14) $0.249 = 2.49 \times 10^{-1}$

Name : 7

Answer key

Score : _____

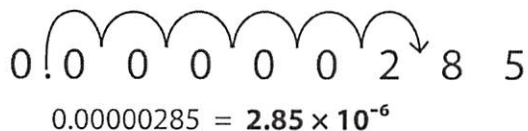
Scientific Notation

Negative: MS1

Example:

Write 0.00000285 in scientific notation.

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


$$0.00000285 = 2.85 \times 10^{-6}$$

Express each number in scientific notation.

1) $0.0000261 = 2.61 \times 10^{-5}$

2) $0.0000005724 = 5.724 \times 10^{-7}$

3) $0.00000312 = 3.12 \times 10^{-6}$

4) $0.00000000100 = 1 \times 10^{-9}$

5) $0.000000000000059 = 5.9 \times 10^{-14}$

6) $0.0000000007 = 7 \times 10^{-10}$

7) $0.0000000088 = 8.8 \times 10^{-9}$

8) $0.00000020 = 2 \times 10^{-7}$

9) $0.000000000000176 = 1.76 \times 10^{-13}$

10) $0.000002905 = 2.905 \times 10^{-6}$

Name : 8

Answer key

Score : _____

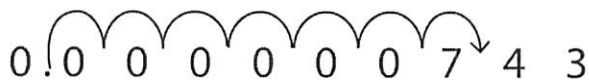
Scientific Notation

Negative: MS2

Example:

Write 0.000000743 in scientific notation.

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


$$0.000000743 = 7.43 \times 10^{-7}$$

Express each number in scientific notation.

1) $0.00000000000034 = 3.4 \times 10^{-12}$

2) $0.0000000408 = 4.08 \times 10^{-8}$

3) $0.0000000000000092 = 9.2 \times 10^{-15}$

4) $0.0000002726 = 2.726 \times 10^{-7}$

5) $0.0000000000000517 = 5.17 \times 10^{-13}$

6) $0.0000045 = 4.5 \times 10^{-6}$

7) $0.0000002149 = 2.149 \times 10^{-7}$

8) $0.00000000623 = 6.23 \times 10^{-9}$

9) $0.0000000000000028 = 2.8 \times 10^{-14}$

10) $0.000000001 = 1 \times 10^{-9}$

Name : 9

Answer key

Score : _____

Scientific Notation

Mixed: ES1

Example: 1

Write 6, 224 in scientific notation.

6² 2 4

We should move the decimal point 3 places to the left. So, the exponent will be 3.

$$6, 224 = 6.224 \times 10^3$$

Example: 2

Write 0.0087 in scientific notation.

0.0087

We should move the decimal point 3 places to the right. So, the exponent will be -3.

$$0.0087 = 8.7 \times 10^{-3}$$

Express each number in scientific notation.

1) $0.0259 = 2.59 \times 10^{-2}$

2) $902 = 9.02 \times 10^2$

3) $5, 5820 = 5.582 \times 10^4$

4) $0.315 = 3.15 \times 10^{-1}$

5) $0.00973 = 9.73 \times 10^{-3}$

6) $1, 0006 = 1.0006 \times 10^4$

7) $856 = 8.56 \times 10^2$

8) $0.2058 = 2.058 \times 10^{-1}$

9) $0.00072 = 7.2 \times 10^{-4}$

10) $5, 008 = 5.008 \times 10^3$

11) $0.001216 = 1.216 \times 10^{-3}$

12) $0.00145 = 1.45 \times 10^{-3}$

13) $7, 5919 = 7.5919 \times 10^4$

14) $0.12 = 1.2 \times 10^{-1}$

Name : 10

Answer key

Score : _____

Scientific Notation

Mixed: ES2

Example: 1

Write 165 in scientific notation.



We should move the decimal point 2 places to the left. So, the exponent will be 2.

$$165 = 1.65 \times 10^2$$

Example: 2

Write 0.0641 in scientific notation.



We should move the decimal point 2 places to the right. So, the exponent will be -2.

$$0.0641 = 6.41 \times 10^{-2}$$

Express each number in scientific notation.

1) 360 = 3.6×10^2

2) 0.00091 = 9.1×10^{-4}

3) 0.00584 = 5.84×10^{-3}

4) 44,268 = 4.4268×10^4

5) 1,073 = 1.073×10^3

6) 0.0769 = 7.69×10^{-2}

7) 0.9861 = 9.861×10^{-1}

8) 3,169 = 3.169×10^3

9) 84,802 = 8.4802×10^4

10) 0.0058 = 5.8×10^{-3}

11) 0.075 = 7.5×10^{-2}

12) 18,569 = 1.8569×10^4

13) 977 = 9.77×10^2

14) 0.000026 = 2.6×10^{-5}

Name : 11**Answer key**

Score : _____

Scientific Notation

Mixed: MS1

Example: 1

Write 514, 223 in scientific notation.

5 1 4 2 2 3 .

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

$$514, 223 = 5.14223 \times 10^5$$

Example: 2

Write 0.0000083 in scientific notation.

0 . 0 0 0 0 0 8 3

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

$$0.0000083 = 8.3 \times 10^{-6}$$

Express each number in scientific notation.

1) 18, 451, 000 = 1.8451×10^7

2) 0.000004826 = 4.826×10^{-6}

3) 5, 820, 000, 000, 000 = 5.82×10^{12}

4) 0.000000007269 = 7.269×10^{-9}

5) 350, 100, 000, 000, 000 = 3.501×10^{14}

6) 0.00000000000014 = 1.4×10^{-13}

7) 71, 300, 000 = 7.13×10^7

8) 0.00000002164 = 2.164×10^{-8}

9) 30, 000, 000, 000, 000 = 3×10^{13}

10) 0.0000642 = 6.42×10^{-5}

Name : 12

Answer key

Score : _____

Scientific Notation

Mixed: MS2

Example: 1

Write 324, 170 in scientific notation.

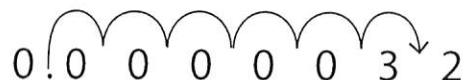


We should move the decimal point 5 places to the left. So, the exponent will be 5.

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

Example: 2

Write 0.0000032 in scientific notation.



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 = 3.7×10^{-5}

2) 5, 725, 000, 000 = 5.725×10^9

3) 0.00000004259 = 4.259×10^{-8}

4) 100, 020 = 1.0002×10^5

5) 0.000000000000081 = 8.1×10^{-14}

6) 785, 120, 000 = 7.8512×10^8

7) 0.00000956 = 9.56×10^{-6}

8) 20, 000, 000, 000 = 2×10^{10}

9) 0.000000001256 = 1.256×10^{-9}

10) 2, 915, 000 = 2.915×10^6

Name : 13

Score : _____

Answer key**Scientific Notation - Standard**

Positive: ES1

Example:Write 8.821×10^2 in standard notation.

Here the exponent is 2. We should move the decimal point 2 places to the right.


$$8.821 \times 10^2 = \mathbf{882.1}$$

Express each number in standard notation.

1) 7.452×10 = **74.52**

2) 1.9824×10^4 = **19,824**

3) 5.9004×10^4 = **59,004**

4) 5.237×10^3 = **5,237**

5) 8.15×10^2 = **815**

6) 9.011×10^2 = **901.1**

7) 6.1425×10^3 = **6142.5**

8) 1.4592×10^5 = **145,920**

9) 3.1478×10^4 = **31,478**

10) 6.982×10^3 = **6,982**

11) 7.586×10 = **75.86**

12) 1.1286×10^4 = **11,286**

13) 4.7126×10^3 = **4712.6**

14) 9.14×10^2 = **914**

Name : 14

Score : _____

Answer key**Scientific Notation - Standard**

Positive: ES2

Example:Write 7.1×10^3 in standard notation.

Here the exponent is 3. We should move the decimal point 3 places to the right.


$$7.1 \times 10^3 = 7,100$$

Express each number in standard notation.

1) $3.1056 \times 10^2 = \underline{310.56}$

2) $2.41 \times 10^2 = \underline{241}$

3) $82.456 \times 10^4 = \underline{824,560}$

4) $5.0237 \times 10^4 = \underline{50,237}$

5) $1.5812 \times 10^3 = \underline{1581.2}$

6) $4.210 \times 10^3 = \underline{4,210}$

7) $9.256 \times 10 = \underline{92.56}$

8) $2.4516 \times 10^5 = \underline{245,160}$

9) $1.15 \times 10^5 = \underline{115,000}$

10) $3.2 \times 10 = \underline{32}$

11) $7.2567 \times 10^3 = \underline{7256.7}$

12) $5.7605 \times 10^5 = \underline{576,050}$

13) $6.27 \times 10^2 = \underline{627}$

14) $85.221 \times 10^4 = \underline{852,210}$

Name : 15

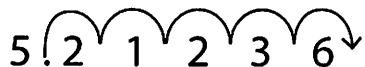
Score : _____

Answer key**Scientific Notation - Standard**

Positive: MS1

Example:Write 5.21236×10^5 in standard notation.

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



$$5.21236 \times 10^5 = 521,236$$

Express each number in standard notation.

1) 3.6212×10^8 = 362,120,000

2) 1.345×10^5 = 134,500

3) 4.62×10^{10} = 46,200,000,000

4) 7.2×10^7 = 72,000,000

5) 2.853×10^{12} = 2,853,000,000,000

6) 8.5925×10^9 = 8,592,500,000

7) 1.24×10^5 = 124,000

8) 5.019×10^8 = 501,900,000

9) 62.025×10^{11} = 6,202,500,000,000

10) 2.4×10^6 = 2,400,000

Name : 16

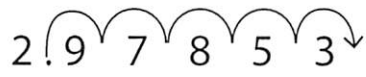
Score : _____

Answer key**Scientific Notation - Standard**

Positive: MS2

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.


$$2.97853 \times 10^5 = \mathbf{297,853}$$

Express each number in standard notation.

1) 5.2564×10^9 = 5,256,400,000

2) 9.42×10^7 = 94,200,000

3) 3.6653×10^{13} = 36,653,000,000,000

4) 7.987×10^{15} = 7,987,000,000,000,000

5) 6.2×10^9 = 6,200,000,000

6) 2.5856×10^8 = 258,560,000

7) 4.002×10^{12} = 4,002,000,000,000

8) 1.25×10^{11} = 125,000,000,000

9) 9.5269×10^6 = 9,526,900

10) 3.415×10^{12} = 3,415,000,000,000

Name : 17

Score : _____

Answer key**Scientific Notation - Standard**

Negative: ES1

Example:Write 9.52×10^{-2} in standard notation.

Here the exponent is -2. We should move the decimal point 2 places to the left.



$$9.52 \times 10^{-2} = \mathbf{0.0952}$$

Express each number in standard notation.

1) $8.5 \times 10^{-2} = \underline{\mathbf{0.085}}$

2) $6.13 \times 10^{-4} = \underline{\mathbf{0.000613}}$

3) $2.0712 \times 10^{-5} = \underline{\mathbf{0.000020712}}$

4) $5.0015 \times 10^{-3} = \underline{\mathbf{0.0050015}}$

5) $4.155 \times 10^{-3} = \underline{\mathbf{0.004155}}$

6) $8.075 \times 10^{-2} = \underline{\mathbf{0.08075}}$

7) $7.4 \times 10^{-4} = \underline{\mathbf{0.00074}}$

8) $9.2 \times 10^{-1} = \underline{\mathbf{0.92}}$

9) $1.4258 \times 10^{-1} = \underline{\mathbf{0.14258}}$

10) $2.98 \times 10^{-4} = \underline{\mathbf{0.000298}}$

11) $9.01 \times 10^{-4} = \underline{\mathbf{0.000901}}$

12) $1.7206 \times 10^{-3} = \underline{\mathbf{0.0017206}}$

13) $3.7026 \times 10^{-2} = \underline{\mathbf{0.037026}}$

14) $8.69 \times 10^{-5} = \underline{\mathbf{0.0000869}}$

Answer key

Scientific Notation - Standard

Negative: ES2

Example:Write 1.005×10^{-3} in standard notation.Here the exponent is -3 . We should move the decimal point 3 places to the left.


$$1.005 \times 10^{-3} = \mathbf{0.001005}$$

Express each number in standard notation.

1) $2.01 \times 10^{-2} = \mathbf{0.0201}$

2) $5.145 \times 10^{-3} = \mathbf{0.005145}$

3) $8.526 \times 10^{-5} = \mathbf{0.00008526}$

4) $9.04 \times 10^{-2} = \mathbf{0.0904}$

5) $6.4822 \times 10^{-3} = \mathbf{0.0064822}$

6) $1.2516 \times 10^{-5} = \mathbf{0.000012516}$

7) $5.9 \times 10^{-1} = \mathbf{0.59}$

8) $4.42 \times 10^{-4} = \mathbf{0.000442}$

9) $1.05 \times 10^{-3} = \mathbf{0.00105}$

10) $7.825 \times 10^{-2} = \mathbf{0.07825}$

11) $4.296 \times 10^{-4} = \mathbf{0.0004296}$

12) $9.072 \times 10^{-1} = \mathbf{0.9072}$

13) $7.0254 \times 10^{-2} = \mathbf{0.070254}$

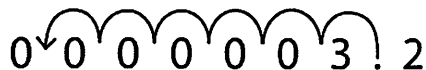
14) $3.5426 \times 10^{-5} = \mathbf{0.000035426}$

Name: 19

Score: _____

Answer key**Scientific Notation - Standard**

Negative: MS1

Example:Write 3.2×10^{-6} in standard notation.Here the exponent is -6 . We should move the decimal point 6 places to the left.

0 0 0 0 0 0 3 . 2

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

Express each number in standard notation.

1) 1.569×10^{-11} = **0.00000000001569**

2) 5.02×10^{-7} = **0.000000502**

3) 9.0012×10^{-12} = **0.0000000000090012**

4) 6.89×10^{-5} = **0.0000689**

5) 2.153×10^{-13} = **0.0000000000002153**

6) 9.42×10^{-8} = **0.0000000942**

7) 4.016×10^{-12} = **0.000000000004016**

8) 7.11×10^{-6} = **0.00000711**

9) 3.752×10^{-11} = **0.000000000003752**

10) 8.4×10^{-5} = **0.000084**

Name : 20

Score : _____

Answer key**Scientific Notation - Standard**

Negative: MS2

Example:Write 7.258×10^{-5} in standard notation.Here the exponent is -5 . We should move the decimal point 5 places to the left.


$$7.258 \times 10^{-5} = 0.00007258$$

Express each number in standard notation.

1) 2.45×10^{-12} = 0.00000000000245

2) 6.0012×10^{-9} = 0.000000060012

3) 1.256×10^{-13} = 0.0000000000001256

4) 5.9×10^{-6} = 0.0000059

5) 4.013×10^{-15} = 0.000000000000004013

6) 8.3692×10^{-9} = 0.000000083692

7) 5.11×10^{-13} = 0.000000000000511

8) 6.859×10^{-5} = 0.00006859

9) 1.7425×10^{-12} = 0.0000000000017425

10) 9.52×10^{-6} = 0.00000952

Name : 21

Answer key

Score : _____

Scientific Notation - Standard

Mixed: ES1

Example: 1

Write 3.25×10^2 in standard notation.

Here the exponent is 2. We should move the decimal point 2 places to the right.


$$3.25 \times 10^2 = \mathbf{325}$$

Example: 2

Write 8.76×10^{-2} in standard notation.

Here the exponent is -2. We should move the decimal point 2 places to the left.


$$8.76 \times 10^{-2} = \mathbf{0.0876}$$

Express each number in standard notation.

1) $9.63 \times 10^{-3} = \mathbf{0.00963}$

2) $5.1146 \times 10^3 = \mathbf{5114.6}$

3) $3.042 \times 10^2 = \mathbf{304.2}$

4) $7.259 \times 10^4 = \mathbf{72,590}$

5) $9.105 \times 10^{-2} = \mathbf{0.09105}$

6) $6.5 \times 10^{-5} = \mathbf{0.000065}$

7) $6.1 \times 10^4 = \mathbf{61,000}$

8) $9.8 \times 10^{-1} = \mathbf{0.98}$

9) $2.9854 \times 10^{-1} = \mathbf{0.29854}$

10) $8.432 \times 10^4 = \mathbf{84,320}$

11) $1.05 \times 10^2 = \mathbf{105}$

12) $2.8502 \times 10^{-3} = \mathbf{0.0028502}$

13) $4.172 \times 10^{-4} = \mathbf{0.0004172}$

14) $9.7 \times 10^5 = \mathbf{970,000}$

Name : 22

Answer key

Score : _____

Scientific Notation - Standard

Mixed: ES2

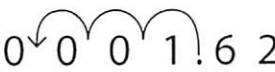
Example: 1Write 7.928×10^2 in standard notation.

Here the exponent is 2. We should move the decimal point 2 places to the right.


$$7.928 \times 10^2 = \mathbf{792.8}$$

Example: 2Write 1.62×10^{-3} in standard notation.

Here the exponent is -3. We should move the decimal point 3 places to the left.


$$1.62 \times 10^{-3} = \mathbf{0.00162}$$

Express each number in standard notation.

1) $8.526 \times 10^{-5} = \underline{\mathbf{0.00008526}}$

2) $3.984 \times 10^3 = \underline{\mathbf{3,984}}$

3) $5.905 \times 10^2 = \underline{\mathbf{590.5}}$

4) $5.562 \times 10^{-2} = \underline{\mathbf{0.05562}}$

5) $4.862 \times 10^{-3} = \underline{\mathbf{0.004862}}$

6) $1.025 \times 10^4 = \underline{\mathbf{10,250}}$

7) $7.2459 \times 10^4 = \underline{\mathbf{72,459}}$

8) $8.4002 \times 10^{-4} = \underline{\mathbf{0.00084002}}$

9) $3.526 \times 10^{-2} = \underline{\mathbf{0.03526}}$

10) $6.182 \times 10^3 = \underline{\mathbf{6,182}}$

11) $9.1 \times 10^5 = \underline{\mathbf{910,000}}$

12) $1.1286 \times 10^{-2} = \underline{\mathbf{0.011286}}$

13) $1.825 \times 10^{-1} = \underline{\mathbf{0.1825}}$

14) $8.24 \times 10^3 = \underline{\mathbf{8,240}}$

Name : 23

Answer key

Score : _____

Scientific Notation - Standard

Mixed: MS1

Example: 1Write 4.32215×10^5 in standard notation.

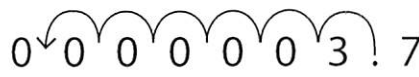
Here the exponent is 5. We should move the decimal point 5 places to the right.



$$4.32215 \times 10^5 = 432,215$$

Example: 2Write 3.7×10^{-6} in standard notation.

Here the exponent is -6. We should move the decimal point 6 places to the left.



$$3.7 \times 10^{-6} = 0.0000037$$

Express each number in standard notation.

1) 4.62×10^8 = 462,000,000

2) 1.2561×10^{-5} = 0.000012561

3) 9.082×10^{11} = 908,200,000,000

4) 5.4×10^{-7} = 0.00000054

5) 3.5624×10^{13} = 35,624,000,000,000

6) 7.5005×10^{-12} = 0.0000000000075005

7) 1.28×10^8 = 128,000,000

8) 2.119×10^{-10} = 0.0000000002119

9) 8.0025×10^6 = 8,002,500

10) 3.1×10^{-9} = 0.0000000031

Name : 24**Answer key**

Score : _____

Scientific Notation - Standard

Mixed: MS2

Example: 1Write 7.2001×10^5 in standard notation.

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

$$7.2001 \times 10^5 = \mathbf{720,010}$$

Example: 2Write 5.4×10^{-6} in standard notation.

Here the exponent is -6. We should move the decimal point 6 places to the left.

$$5.4 \times 10^{-6} = \mathbf{0.0000054}$$

Express each number in standard notation.

$$1) \quad 9.203 \times 10^{-10} = \underline{\mathbf{0.0000000009203}}$$

$$2) \quad 2.1569 \times 10^8 = \underline{\mathbf{215,690,000}}$$

$$3) \quad 8.006 \times 10^{-13} = \underline{\mathbf{0.0000000000008006}}$$

$$4) \quad 5.18 \times 10^7 = \underline{\mathbf{51,800,000}}$$

$$5) \quad 6.0155 \times 10^{-10} = \underline{\mathbf{0.00000000060155}}$$

$$6) \quad 7.042 \times 10^{12} = \underline{\mathbf{7,042,000,000,000}}$$

$$7) \quad 4.1 \times 10^{-6} = \underline{\mathbf{0.0000041}}$$

$$8) \quad 1.256 \times 10^9 = \underline{\mathbf{1,256,000,000}}$$

$$9) \quad 6.48 \times 10^{14} = \underline{\mathbf{648,000,000,000,000}}$$

$$10) \quad 5.4105 \times 10^{-12} = \underline{\mathbf{0.0000000000054105}}$$

Name : 25

Score : _____

Answer key**Standard and Scientific Notations**

Mixed: ES1

Express each number in scientific notation.

1) 0.0056 = 5.6×10^{-3}

2) 24,010 = 2.401×10^4

3) 4,085 = 4.085×10^3

4) 0.017 = 1.7×10^{-2}

5) 0.000796 = 7.96×10^{-4}

6) 952 = 9.52×10^2

7) 50,413 = 5.0413×10^4

8) 0.004 = 4×10^{-3}

Express each number in standard notation.

9) 2.445×10^3 = 2,445

10) 1.04×10^{-4} = 0.000104

11) 9.165×10^{-2} = 0.09165

12) 5.962×10^3 = 5,962

13) 2.2×10^{-5} = 0.000022

14) 3.12×10^{-1} = 0.312

15) 8.0447×10^4 = 80,447

16) 1.278×10^2 = 127.8

Name : 26

Score : _____

Answer key**Standard and Scientific Notations**

Mixed: ES2

Express each number in scientific notation.

1) $0.00245 = \underline{2.45 \times 10^{-3}}$

2) $6,072 = \underline{6.072 \times 10^3}$

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

4) $0.245 = \underline{2.45 \times 10^{-1}}$

5) $30,485 = \underline{3.0485 \times 10^4}$

6) $156 = \underline{1.56 \times 10^2}$

7) $0.0568 = \underline{5.68 \times 10^{-2}}$

8) $0.0007 = \underline{7 \times 10^{-4}}$

Express each number in standard notation.

9) $9.83 \times 10^{-4} = \underline{0.000983}$

10) $3.987 \times 10^4 = \underline{39,870}$

11) $6.206 \times 10^2 = \underline{620.6}$

12) $5 \times 10^5 = \underline{500,000}$

13) $7.6 \times 10^3 = \underline{7,600}$

14) $7.1 \times 10^{-4} = \underline{0.00071}$

15) $1.52 \times 10^{-1} = \underline{0.152}$

16) $6.25 \times 10^2 = \underline{625}$

Name : 27

Score : _____

Answer key**Standard and Scientific Notations**

Mixed: MS1

Express each number in scientific notation.

1) $0.0000056 = 5.6 \times 10^{-6}$

2) $90,825,000 = 9.0825 \times 10^7$

3) $745,000 = 7.45 \times 10^5$

4) $0.0000000377 = 3.77 \times 10^{-8}$

5) $100,000,000 = 1 \times 10^8$

Express each number in standard notation.

6) $1.028 \times 10^9 = 1,028,000,000$

7) $5.61 \times 10^{-11} = 0.0000000000561$

8) $4.128 \times 10^{10} = 41,280,000,000$

9) $2.9 \times 10^{-8} = 0.000000029$

10) $6.542 \times 10^{-12} = 0.000000000006542$

Name : 28

Score : _____

Answer key

Standard and Scientific Notations

Mixed: MS2

Express each number in scientific notation.

1) $0.00000927 = \underline{9.27 \times 10^{-6}}$

2) $85,000,000 = \underline{8.5 \times 10^7}$

3) $4,202,100 = \underline{4.2021 \times 10^6}$

4) $0.0000000000037 = \underline{3.7 \times 10^{-11}}$

5) $1,000,000,000 = \underline{1 \times 10^9}$

Express each number in standard notation.

6) $6.024 \times 10^{-13} = \underline{0.00000000000006024}$

7) $2.13 \times 10^{11} = \underline{213,000,000,000}$

8) $1.2 \times 10^{-8} = \underline{0.000000012}$

9) $3.7 \times 10^{-9} = \underline{0.0000000037}$

10) $5.002 \times 10^6 = \underline{5,002,000}$

Name : 29

Answer key

Score : _____

Scientific Notation

Mul/Div: ES1

Simplify and express in scientific notation:

Example 1

$$(6 \times 10^3) (2 \times 10^5)$$

$$\begin{aligned}(6 \times 10^3) (2 \times 10^5) &= 12 \times 10^3 \times 10^5 \\ &= 12 \times 10^8 \\ &= \mathbf{1.2 \times 10^9}\end{aligned}$$

Example 2

$$\begin{aligned}\frac{18 \times 10^6}{4 \times 10^4} &= \frac{18}{4} \times 10^6 \times 10^{-4} \\ &= \mathbf{4.5 \times 10^2}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(7 \times 10^8) (9 \times 10^6)$

Answer : 6.3×10^{15}

2) $\frac{3 \times 10^4}{8 \times 10}$

Answer : 3.75×10^2

3) $\frac{4 \times 10^9}{5 \times 10^7}$

Answer : 8×10

4) $(2 \times 10^3) (3 \times 10^4)$

Answer : 6×10^7

5) $(3 \times 10^7) (9 \times 10^6)$

Answer : 2.7×10^{14}

6) $\frac{4 \times 10^5}{16 \times 10^2}$

Answer : 2.5×10^2

7) $\frac{9 \times 10^5}{10 \times 10^3}$

Answer : 9×10

8) $(11 \times 10^4) (7 \times 10^2)$

Answer : 7.7×10^7

Name : 30

Answer key

Score : _____

Scientific Notation

Mul/Div: ES2

Simplify and express in scientific notation:

Example 1

$$\frac{6 \times 10^6}{8 \times 10^4} = \frac{6}{8} \times 10^6 \times 10^{-4}$$
$$= 7.5 \times 10$$

Example 2

$$(8 \times 10^5) (6 \times 10^3)$$
$$(8 \times 10^5) (6 \times 10^3) = 48 \times 10^5 \times 10^3$$
$$= 48 \times 10^8$$
$$= 4.8 \times 10^9$$

Simplify each problem and express the answer in scientific notation.

1) $\frac{5 \times 10^7}{4 \times 10^4}$

Answer : 1.25×10^3

2) $(4 \times 10^6) (6 \times 10^8)$

Answer : 2.4×10^{15}

3) $(3 \times 10^3) (2 \times 10^2)$

Answer : 6×10^5

4) $\frac{15 \times 10^4}{8 \times 10^2}$

Answer : 1.875×10^2

5) $\frac{17 \times 10^8}{4 \times 10^5}$

Answer : 4.25×10^3

6) $(9 \times 10^2) (4 \times 10^5)$

Answer : 3.6×10^8

7) $(2 \times 10^4) (7 \times 10^6)$

Answer : 1.4×10^{11}

8) $\frac{20 \times 10^9}{1 \times 10^7}$

Answer : 2×10^3

Name : 31**Answer key**

Score : _____

Scientific Notation

Mul/Div: MS1

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}
 &(5 \times 10^6) (7 \times 10^9) \\
 &(5 \times 10^6) (7 \times 10^9) = 35 \times 10^6 \times 10^9 \\
 &= 35 \times 10^{15} \\
 &= \mathbf{3.5 \times 10^{16}}
 \end{aligned}$$

Example 2

$$\begin{aligned}
 \frac{9 \times 10^8}{8 \times 10^{-2}} &= \frac{9}{8} \times 10^8 \times 10^2 \\
 &= \mathbf{1.125 \times 10^{10}}
 \end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(2 \times 10^7) (9 \times 10^{-3})$

Answer : 1.8×10^5

2) $\frac{15 \times 10^{-5}}{4 \times 10^{-7}}$

Answer : 3.75×10^2

3) $\frac{15 \times 10^{-7}}{16 \times 10^{-5}}$

Answer : 9.375×10^{-3}

4) $(9 \times 10^8) (7 \times 10^5)$

Answer : 6.3×10^{14}

5) $(8 \times 10^{-7}) (3 \times 10^{-6})$

Answer : 2.4×10^{-12}

6) $\frac{7 \times 10^{-3}}{16 \times 10^2}$

Answer : 4.375×10^{-6}

7) $\frac{4 \times 10^8}{1 \times 10^4}$

Answer : 4×10^4

8) $(4 \times 10^3) (4 \times 10^7)$

Answer : 1.6×10^{11}

Name : 32

Answer key

Score : _____

Scientific Notation

Mul/Div: MS2

Simplify and express in scientific notation:

Example 1

$$\frac{5 \times 10^9}{16 \times 10^6} = \frac{5}{16} \times 10^9 \times 10^{-6}$$
$$= 3.125 \times 10^2$$

Example 2

$$(7 \times 10^8) (9 \times 10^4)$$
$$(7 \times 10^8) (9 \times 10^4) = 63 \times 10^8 \times 10^4$$
$$= 63 \times 10^{12}$$
$$= 6.3 \times 10^{13}$$

Simplify each problem and express the answer in scientific notation.

1) $\frac{21 \times 10^{-7}}{4 \times 10^2}$

Answer : 5.25×10^{-9}

2) $(12 \times 10^{-5}) (8 \times 10^{-9})$

Answer : 9.6×10^{-13}

3) $(2 \times 10^6) (5 \times 10^{-2})$

Answer : 1×10^5

4) $\frac{13 \times 10^{-8}}{8 \times 10^{-4}}$

Answer : 1.625×10^{-4}

5) $\frac{9 \times 10^3}{4 \times 10^{-5}}$

Answer : 2.25×10^8

6) $(6 \times 10^{-7}) (3 \times 10^3)$

Answer : 1.8×10^{-3}

7) $(4 \times 10) (13 \times 10^5)$

Answer : 5.2×10^7

8) $\frac{27 \times 10^4}{10 \times 10^8}$

Answer : 2.7×10^{-4}

Name : 33**Answer key**

Score : _____

Scientific Notation

Mul/Div: DS1

Simplify and express in scientific notation:

Example 1

$$\frac{2.5 \times 10^6}{0.5 \times 10^3} = \frac{2.5}{0.5} \times 10^6 \times 10^{-3}$$

$$= 5 \times 10^3$$

Example 2

$$(3.5 \times 10^4) (0.4 \times 10^{-7})$$

$$(3.5 \times 10^4) (0.4 \times 10^{-7}) = 1.4 \times 10^4 \times 10^{-7}$$

$$= 1.4 \times 10^{-3}$$

Simplify each problem and express the answer in scientific notation.

1) $\frac{8.14 \times 10^2}{2 \times 10^4}$

Answer : 4.07×10^{-2}

2) $(0.6 \times 10^3) (1.4 \times 10^5)$

Answer : 8.4×10^7

3) $\frac{0.24 \times 10^5}{0.5 \times 10^{-7}}$

Answer : 4.8×10^{11}

4) $(4.02 \times 10^7) (0.9 \times 10^{-4})$

Answer : 3.618×10^3

5) $(3.7 \times 10^{-2}) (6.4 \times 10^{-6})$

Answer : 2.368×10^{-7}

6) $\frac{5.10 \times 10^9}{0.6 \times 10^{-6}}$

Answer : 8.5×10^{15}

7) $\frac{2.78 \times 10^{-3}}{0.8 \times 10^{-2}}$

Answer : 3.475×10^{-1}

8) $(0.2 \times 10) (7.2 \times 10^5)$

Answer : 1.44×10^6

Name : 34

Answer key

Score : _____

Scientific Notation

Mul/Div: DS2

Simplify and express in scientific notation:

Example 1

$$(5.2 \times 10^4) (4.7 \times 10^6)$$

$$(5.2 \times 10^4) (4.7 \times 10^6) = 24.44 \times 10^4 \times 10^6$$

$$= \mathbf{2.444 \times 10^{11}}$$

Example 2

$$\frac{3.45 \times 10^{-3}}{0.25 \times 10^{-7}} = \frac{3.45}{0.25} \times 10^{-3} \times 10^7$$

$$= 13.8 \times 10^4$$

$$= \mathbf{1.38 \times 10^5}$$

Simplify each problem and express the answer in scientific notation.

1) $(0.82 \times 10^2) (0.2 \times 10^5)$

Answer : 1.64×10^6

2) $\frac{0.45 \times 10^6}{0.3 \times 10^9}$

Answer : 1.5×10^{-3}

3) $\frac{0.7 \times 10^{-2}}{0.1 \times 10^7}$

Answer : 7×10^{-9}

4) $(1.6 \times 10) (1.3 \times 10^{-7})$

Answer : 2.08×10^{-6}

5) $(6.9 \times 10^{-3}) (0.5 \times 10^{-4})$

Answer : 3.45×10^{-7}

6) $\frac{4.12 \times 10^{-1}}{0.4 \times 10^{-6}}$

Answer : 1.03×10^6

7) $\frac{7.8 \times 10^5}{1.3 \times 10^2}$

Answer : 6×10^3

8) $(0.4 \times 10^7) (0.1 \times 10^3)$

Answer : 4×10^8

Name : 35**Answer key**

Score : _____

Scientific Notation

Add/Sub: ES1

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(2 \times 10^4) + (3 \times 10^5) \\&= (2 \times 10^4) + (3 \times 10^4) \times 10 \\&= (2 \times 10^4) + (30 \times 10^4) \\&= 32 \times 10^4 \\&= \mathbf{3.2 \times 10^5}\end{aligned}$$

Example 2

$$\begin{aligned}(7 \times 10^8) - (4 \times 10^6) \\&= (7 \times 10^6) \times 10^2 - (4 \times 10^6) \\&= (700 \times 10^6) - (4 \times 10^6) \\&= 696 \times 10^6 \\&= \mathbf{6.96 \times 10^8}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(2 \times 10^3) + (5 \times 10^5)$

Answer : 5.02×10^5

2) $(4 \times 10^8) - (9 \times 10^7)$

Answer : 3.1×10^8

3) $(8 \times 10^9) - (3 \times 10^7)$

Answer : 7.97×10^9

4) $(5 \times 10^7) + (1 \times 10^6)$

Answer : 5.1×10^7

5) $(4 \times 10^2) + (7 \times 10^3)$

Answer : 7.4×10^3

6) $(9 \times 10^5) - (6 \times 10^4)$

Answer : 8.4×10^5

7) $(1 \times 10^6) - (8 \times 10^4)$

Answer : 9.2×10^5

8) $(5 \times 10^9) + (3 \times 10^8)$

Answer : 5.3×10^9

Name : 36

Answer key

Score : _____

Scientific Notation

Add/Sub: ES2

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(4 \times 10^3) - (2 \times 10^2) \\&= (4 \times 10^2) \times 10 - (2 \times 10^2) \\&= (40 \times 10^2) - (2 \times 10^2) \\&= 38 \times 10^2 \\&= \mathbf{3.8 \times 10^3}\end{aligned}$$

Example 2

$$\begin{aligned}(9 \times 10^5) + (6 \times 10^7) \\&= (9 \times 10^5) + (6 \times 10^5) \times 10^2 \\&= (9 \times 10^5) + (600 \times 10^5) \\&= 609 \times 10^5 \\&= \mathbf{6.09 \times 10^7}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(6 \times 10^6) - (3 \times 10^4)$

Answer : 5.97×10^6

2) $(5 \times 10^9) + (10 \times 10^8)$

Answer : 6×10^9

3) $(7 \times 10^7) + (4 \times 10^6)$

Answer : 7.4×10^7

4) $(3 \times 10^4) - (2 \times 10^2)$

Answer : 2.98×10^4

5) $(5 \times 10^5) - (8 \times 10^4)$

Answer : 4.2×10^5

6) $(8 \times 10^6) + (9 \times 10^5)$

Answer : 8.9×10^6

7) $(2 \times 10^8) + (7 \times 10^6)$

Answer : 2.07×10^8

8) $(4 \times 10^8) - (3 \times 10^7)$

Answer : 3.7×10^8

Name : 37**Answer key**

Score : _____

Scientific Notation

Add/Sub: MS1

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(6 \times 10^2) + (5 \times 10^5) \\&= (6 \times 10^2) + (5 \times 10^2) \times 10^3 \\&= (6 \times 10^2) + (5000 \times 10^2) \\&= 5006 \times 10^2 \\&= \mathbf{5.006 \times 10^5}\end{aligned}$$

Example 2

$$\begin{aligned}(3 \times 10^{-3}) - (2 \times 10^{-6}) \\&= (3 \times 10^{-6}) \times 10^3 - (2 \times 10^{-6}) \\&= (3000 \times 10^{-6}) - (2 \times 10^{-6}) \\&= 2998 \times 10^{-6} \\&= \mathbf{2.998 \times 10^{-3}}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(3 \times 10^{-2}) - (6 \times 10^{-5})$

Answer : 2.994×10^{-2}

2) $(8 \times 10^3) + (5 \times 10^{-1})$

Answer : 8.0005×10^3

3) $(7 \times 10^7) + (4 \times 10^4)$

Answer : 7.004×10^7

4) $(9 \times 10^{-5}) - (6 \times 10^{-7})$

Answer : 8.94×10^{-5}

5) $(5 \times 10^6) - (8 \times 10^3)$

Answer : 4.992×10^6

6) $(6 \times 10^{-7}) + (7 \times 10^{-4})$

Answer : 7.006×10^{-4}

7) $(3 \times 10^{-9}) + (5 \times 10^{-5})$

Answer : 5.0003×10^{-5}

8) $(2 \times 10^8) - (4 \times 10^5)$

Answer : 1.996×10^8

Name : 38

Answer key

Score : _____

Scientific Notation

Add/Sub: MS2

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(3 \times 10^4) + (7 \times 10^2) \\&= (3 \times 10^2) \times 10^2 + (7 \times 10^2) \\&= (300 \times 10^2) + (7 \times 10^2) \\&= 307 \times 10^2 \\&= \mathbf{3.07 \times 10^4}\end{aligned}$$

Example 2

$$\begin{aligned}(5 \times 10^{-5}) - (2 \times 10^{-8}) \\&= (5 \times 10^{-8}) \times 10^3 - (2 \times 10^{-8}) \\&= (5000 \times 10^{-8}) - (2 \times 10^{-8}) \\&= 4998 \times 10^{-8} \\&= \mathbf{4.998 \times 10^{-5}}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(4 \times 10^2) - (2 \times 10^{-1})$

Answer : $\mathbf{3.998 \times 10^2}$

2) $(9 \times 10^4) + (7 \times 10)$

Answer : $\mathbf{9.007 \times 10^4}$

3) $(6 \times 10^{-3}) - (3 \times 10^{-7})$

Answer : $\mathbf{5.9997 \times 10^{-3}}$

4) $(5 \times 10^5) - (8 \times 10^2)$

Answer : $\mathbf{4.992 \times 10^5}$

5) $(4 \times 10^5) + (7 \times 10^8)$

Answer : $\mathbf{7.004 \times 10^8}$

6) $(2 \times 10^{-1}) - (8 \times 10^{-4})$

Answer : $\mathbf{1.992 \times 10^{-1}}$

7) $(5 \times 10^{-7}) - (3 \times 10^{-9})$

Answer : $\mathbf{4.97 \times 10^{-7}}$

8) $(9 \times 10^{-5}) + (6 \times 10^{-2})$

Answer : $\mathbf{6.009 \times 10^{-2}}$

Name : 39**Answer key**

Score : _____

Scientific Notation

Add/Sub: DS1

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(1.2 \times 10^2) + (3.04 \times 10^5) \\&= (1.2 \times 10^2) + (3.04 \times 10^2) \times 10^3 \\&= (1.2 \times 10^2) + (3040 \times 10^2) \\&= 3041.2 \times 10^2 \\&= \mathbf{3.0412 \times 10^5}\end{aligned}$$

Example 2

$$\begin{aligned}(5.54 \times 10^{-6}) - (2.32 \times 10^{-8}) \\&= (5.54 \times 10^{-8}) \times 10^2 - (2.32 \times 10^{-8}) \\&= (554 \times 10^{-8}) - (2.32 \times 10^{-8}) \\&= 551.68 \times 10^{-8} \\&= \mathbf{5.5168 \times 10^{-6}}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(2.3 \times 10^4) + (4.16 \times 10^7)$

Answer : 4.1623×10^7

2) $(9.4 \times 10^2) + (3.8 \times 10^{-1})$

Answer : 9.4038×10^2

3) $(6.07 \times 10^{-1}) - (4.52 \times 10^{-2})$

Answer : 5.618×10^{-1}

4) $(7.98 \times 10^7) - (1.24 \times 10^5)$

Answer : 7.9676×10^7

5) $(5.692 \times 10^{-4}) + (8.8 \times 10^{-5})$

Answer : 6.572×10^{-4}

6) $(4.6 \times 10^2) - (2 \times 10^{-2})$

Answer : 4.5998×10^2

7) $(9.18 \times 10^9) - (3.9 \times 10^6)$

Answer : 9.1761×10^9

8) $(1.7 \times 10^{-1}) + (6.504 \times 10^2)$

Answer : 6.5057×10^2

Name : 40**Answer key**

Score : _____

Scientific Notation

Add/Sub: DS2

Simplify and express in scientific notation:

Example 1

$$\begin{aligned}(2.5 \times 10^6) + (8.13 \times 10^8) \\&= (2.5 \times 10^6) + (8.13 \times 10^6) \times 10^2 \\&= (2.5 \times 10^6) + (813 \times 10^6) \\&= 815.5 \times 10^6 \\&= \mathbf{8.155 \times 10^8}\end{aligned}$$

Example 2

$$\begin{aligned}(1.04 \times 10^{-2}) - (5.9 \times 10^{-5}) \\&= (1.04 \times 10^{-5}) \times 10^3 - (5.9 \times 10^{-5}) \\&= (1040 \times 10^{-5}) - (5.9 \times 10^{-5}) \\&= 1034.1 \times 10^{-5} \\&= \mathbf{1.0341 \times 10^{-2}}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1) $(9.63 \times 10^9) + (4 \times 10^5)$

Answer : $\mathbf{9.6304 \times 10^9}$

2) $(6.24 \times 10^{-2}) + (7.1 \times 10^{-3})$

Answer : $\mathbf{6.95 \times 10^{-2}}$

3) $(2.19 \times 10^{-7}) - (1.8 \times 10^{-8})$

Answer : $\mathbf{2.01 \times 10^{-7}}$

4) $(3.62 \times 10^{-2}) + (7.8 \times 10^{-5})$

Answer : $\mathbf{3.6278 \times 10^{-2}}$

5) $(4 \times 10^3) + (6.17 \times 10^7)$

Answer : $\mathbf{6.1704 \times 10^7}$

6) $(9.67 \times 10^9) - (5.1 \times 10^6)$

Answer : $\mathbf{9.6649 \times 10^9}$

7) $(8.28 \times 10^{-5}) - (4.1 \times 10^{-7})$

Answer : $\mathbf{8.239 \times 10^{-5}}$

8) $(2.6 \times 10^{-1}) + (3.48 \times 10^2)$

Answer : $\mathbf{3.4826 \times 10^2}$

Name : 41

Answer key

Score : _____

Scientific Notation

Mixed operations: ES1

Simplify each problem and express the answer in scientific notation.

1) $(8 \times 10^5) + (5 \times 10^4)$

Answer : 8.5×10^5

2) $\frac{7 \times 10^6}{2 \times 10^3}$

Answer : 3.5×10^3

3) $(3 \times 10^4) - (5 \times 10^2)$

Answer : 2.95×10^4

4) $(4 \times 10) (2 \times 10^3)$

Answer : 8×10^4

5) $\frac{9 \times 10^3}{2 \times 10}$

Answer : 4.5×10^2

6) $(8 \times 10^3) (3 \times 10^4)$

Answer : 2.4×10^8

7) $(5 \times 10^8) - (3 \times 10^6)$

Answer : 4.97×10^8

8) $(7 \times 10^5) + (6 \times 10^7)$

Answer : 6.07×10^7

9) $(4 \times 10^2) + (9 \times 10^4)$

Answer : 9.04×10^4

10) $(2 \times 10^3) (5 \times 10^4)$

Answer : 1×10^8

Name : 42

Answer key

Score : _____

Scientific Notation

Mixed operations: ES2

Simplify each problem and express the answer in scientific notation.

1) $(5 \times 10^3) + (2 \times 10^5)$

Answer : 2.05×10^5

2) $(3 \times 10^6) - (8 \times 10^4)$

Answer : 2.92×10^6

3) $(5 \times 10^6) (7 \times 10^8)$

Answer : 3.5×10^{15}

4) $\frac{9 \times 10^5}{6 \times 10^2}$

Answer : 1.5×10^3

5) $(8 \times 10^8) - (7 \times 10^5)$

Answer : 7.993×10^8

6) $(2 \times 10^5) (5 \times 10^9)$

Answer : 1×10^{15}

7) $\frac{11 \times 10^5}{4 \times 10^2}$

Answer : 2.75×10^3

8) $(10 \times 10^2) + (9 \times 10^4)$

Answer : 9.1×10^4

9) $(7 \times 10^8) + (5 \times 10^6)$

Answer : 7.05×10^8

10) $(4 \times 10^7) (6 \times 10^6)$

Answer : 2.4×10^{14}

Name : 43**Answer key**

Score : _____

Scientific Notation

Mixed operations: MS1

Simplify each problem and express the answer in scientific notation.

1) $(6 \times 10^{-5}) + (2 \times 10^{-1})$

Answer : 2.0006×10^{-1}

2) $(9 \times 10^4) (5 \times 10^7)$

Answer : 4.5×10^{12}

3) $\frac{8 \times 10^{-6}}{4 \times 10^{-2}}$

Answer : 2×10^{-4}

4) $(3 \times 10^9) - (2 \times 10^6)$

Answer : 2.998×10^9

5) $(9 \times 10^2) - (3 \times 10^{-2})$

Answer : 8.9997×10^2

6) $(7 \times 10^4) + (6 \times 10^7)$

Answer : 6.007×10^7

7) $(5 \times 10^6) (4 \times 10^9)$

Answer : 2×10^{16}

8) $\frac{3 \times 10^{-7}}{8 \times 10^{-3}}$

Answer : 3.75×10^{-5}

9) $(2 \times 10^{-6}) + (7 \times 10^{-3})$

Answer : 7.002×10^{-3}

10) $(5 \times 10^3) (5 \times 10^{-1})$

Answer : 2.5×10^3

Name : 44**Answer key**

Score : _____

Scientific Notation

Mixed operations: MS2

Simplify each problem and express the answer in scientific notation.

1) $(4 \times 10^{-2}) - (6 \times 10^{-5})$

Answer : 3.994×10^{-2}

2) $(10 \times 10^3) + (2 \times 10^7)$

Answer : 2.001×10^7

3) $\frac{6 \times 10^6}{5 \times 10^2}$

Answer : 1.2×10^4

4) $(5 \times 10^{-9})(7 \times 10^{-6})$

Answer : 3.5×10^{-14}

5) $(8 \times 10^6) - (5 \times 10^3)$

Answer : 7.995×10^6

6) $(9 \times 10^2) + (6 \times 10^{-1})$

Answer : 9.006×10^2

7) $(2 \times 10^{-7})(5 \times 10^{-3})$

Answer : 1×10^{-9}

8) $(4 \times 10^3) + (3 \times 10^7)$

Answer : 3.0004×10^7

9) $(10 \times 10^{-3}) - (2 \times 10^{-6})$

Answer : 9.998×10^{-3}

10) $\frac{8 \times 10^{-9}}{5 \times 10^{-5}}$

Answer : 1.6×10^{-4}

Name : 45

Answer key

Score : _____

Scientific Notation

Mixed operations: DS1

Simplify each problem and express the answer in scientific notation.

1) $\frac{3.2 \times 10^4}{1.6 \times 10^2}$

Answer : 2×10^2

2) $(7.1 \times 10^{-2}) + (5.02 \times 10^{-4})$

Answer : 7.1502×10^{-2}

3) $(4.8 \times 10^6) - (9.7 \times 10^4)$

Answer : 4.703×10^6

4) $(6.18 \times 10^{-1})(8.7 \times 10^2)$

Answer : 5.3766×10^2

5) $(5.98 \times 10^{-2}) + (3.4 \times 10^{-4})$

Answer : 6.014×10^{-2}

6) $\frac{2.15 \times 10^7}{5 \times 10^3}$

Answer : 4.3×10^3

7) $(2.08 \times 10^{-7})(8.1 \times 10^{-5})$

Answer : 1.6848×10^{-11}

8) $\frac{5.4 \times 10^2}{1.2 \times 10^{-1}}$

Answer : 4.5×10^3

9) $(6.5 \times 10^7) - (3.1 \times 10^4)$

Answer : 6.4969×10^7

10) $(1.98 \times 10^{-3}) + (5.2 \times 10^{-6})$

Answer : 1.9852×10^{-3}

Name : 46

Answer key

Score : _____

Scientific Notation

Mixed operations: DS2

Simplify each problem and express the answer in scientific notation.

1) $(4.02 \times 10^{-3}) - (6.8 \times 10^{-4})$

Answer : 3.34×10^{-3}

2) $(6.4 \times 10^4) + (2.8 \times 10^7)$

Answer : 2.8064×10^7

3) $\frac{1.12 \times 10^4}{2.8 \times 10^2}$

Answer : 4×10

4) $(7.63 \times 10^{-8})(2.7 \times 10^{-5})$

Answer : 2.0601×10^{-12}

5) $(4.08 \times 10^2) - (5.1 \times 10^{-1})$

Answer : 4.0749×10^2

6) $(2.9 \times 10^2) + (8.63 \times 10^5)$

Answer : 8.6329×10^5

7) $(6.44 \times 10^5)(7.8 \times 10^2)$

Answer : 5.0232×10^8

8) $\frac{1.3 \times 10^{-7}}{6.5 \times 10^{-5}}$

Answer : 2×10^{-3}

9) $(9.78 \times 10^{-3}) - (7.2 \times 10^{-6})$

Answer : 9.7728×10^{-3}

10) $(2.4 \times 10^4) + (1.89 \times 10^5)$

Answer : 2.13×10^5