



Worksheet Scientific Notation/Significant Figures

Answers #1

1. Convert each of the following into scientific notation.

- a) 3.427×10^3
d) 1.72×10^2
g) 3.1000×10^5
j) 4.55×10^{-5}
m) 9.82×10^{-4}
p) 3.03×10^{-1}
s) 5.65×10^{-3}
v) $1.000 \times 10^0 = 1.000$

- b) 4.56×10^{-3}
e) 9.84×10^{-4}
h) 1.14×10^{-1}
k) 2.2052×10^3
n) 4.73×10^{-2}
q) 2.04×10^6
t) 1.3622052×10^6
c) 1.23453×10^5
f) 5.02×10^{-1}
i) 1.072×10^2
l) 3.00×10^{-1}
o) 6.50502×10^2
r) $1.29 \times 10^6 = 1.29$
u) 4.500×10^5

2. Determine the number of significant figures in each of the following:

- a) 4
d) 3
g) 5
j) 3
m) 3
p) 3
s) 3
v) 4
b) 3
e) 3
h) 3
k) 5
n) 3
q) 3
t) 8
w) 5
c) 6
f) 3
i) 4
l) 3
o) 6
r) 3
u) 4
x) 3

3. Convert each into decimal form.

15600 ± 100	0.0056	0.0369	73690000 ± 10000
259	0.0000459	0.1369	69000 ± 1000
2.59	0.0000209		

4. Calculate the following. Give the answer in correct scientific notation.

- a) 2.7×10^6
c) 2.53×10^{24}
e) 2.2×10^6
g) 5.34×10^{-44}
b) -2.7×10^3
d) 1.47×10^3
f) -3.5×10^2
h) -1.2×10^{-2}

5. Calculate the following. Give the answer in correct scientific notation.

- a) 2.63×10^{-4}
c) 1.97×10^2
e) 2.5×10^{-83}
g) 2.000×10^{79}
b) 2.3×10^{13}
d) 1.65×10^{-23}
f) 1.6×10^{14}
h) 2.37×10^{-7}



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Answers #2

1. Convert each of the following into scientific notation.

$$7.27 \times 10^2$$

$$1.72000 \times 10^5$$

$$9.84 \times 10^{-4}$$

$$2.000 \times 10^4$$

$$1.4$$

$$2.560 \times 10^{33}$$

2. Convert each into decimal form.

$$15600 \pm 100$$

$$0.036$$

$$73690000 \pm 10000$$

$$590 \pm 10$$

$$0.000059$$

3. Calculate the following. Give the answer in correct scientific notation.

a) 9.434×10^{66}

b) -8.87×10^2

4. Calculate the following. Give the answer in correct scientific notation.

a) 7.16×10^{20}

b) 1.1025×10^{130}

5. Give the number of significant figures in each of the following.

a) 1.05 g 3

b) 0.0003040 mm 4

c) 29000 ± 10 ft 4

d) 0.90×10^{45} L 2

e) the number of eggs (12) that make up a dozen infinite

6. Determine the answer for each of the following. Be sure to use the correct number of significant figures.

a) 45.3

b) 5.04

c) 9.9×10^3

d) 3



Worksheet

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Answers #3

1. Give the number of significant figures in each of the following.

a) 10.0005 g 6

b) 0.003423 mm 4

c) $2900 \pm 100\text{ ft}$ 2

d) $8.9 \times 10^5\text{ L}$ 2

e) the number of minutes (60) that make up an hour infinite

2. Determine the answer for each of the following. Be sure to use the correct number of significant figures.

a) 47.36

b) -1.960

c) 5.6×10^2

d) 5×10^3

3. Round each of the following to 3 significant figures.

708

2.30×10^3

0.000335

10.3

19.0×10^{21}

4. Convert each of the following into correct scientific notation.

1.747×10^3

9.84×10^{-6}

3.2000×10^5

2.014×10^{-1}

2.560×10^{16}

5. Calculate the following using the correct number of significant figures.

a) 3.26×10^{47}

b) 7.5×10^3

6. Calculate the following using the correct number of significant figures.

a) 5.4×10^{118}

b) 9.5×10^{10}