

Name : _____

Score : _____

Scientific Notation

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 = _____

2) 0.000004826 = _____

3) 5, 820, 000, 000, 000 = _____

4) 0.000000007269 = _____

5) 350, 100, 000, 000, 000 = _____

6) 0.00000000000014 = _____

7) 71, 300, 000 = _____

8) 0.00000002164 = _____

9) 30, 000, 000, 000, 000 = _____

10) 0.0000642 = _____

Answer key

Example: 1

Write 514, 223 in scientific notation.

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.

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.

$$1) \quad 18, 451, 000 \quad = \quad \underline{1.8451 \times 10^7}$$

$$2) \quad 0.000004826 \quad = \quad \underline{4.826 \times 10^{-6}}$$

$$3) \quad 5, 820, 000, 000, 000 \quad = \quad \underline{5.82 \times 10^{12}}$$

$$4) \quad 0.000000007269 \quad = \quad \underline{7.269 \times 10^{-9}}$$

$$5) \quad 350, 100, 000, 000, 000 \quad = \quad \underline{3.501 \times 10^{14}}$$

$$6) \quad 0.00000000000014 \quad = \quad \underline{1.4 \times 10^{-13}}$$

$$7) \quad 71, 300, 000 \quad = \quad \underline{7.13 \times 10^7}$$

$$8) \quad 0.00000002164 \quad = \quad \underline{2.164 \times 10^{-8}}$$

$$9) \quad 30, 000, 000, 000, 000 \quad = \quad \underline{3 \times 10^{13}}$$

$$10) \quad 0.0000642 \quad = \quad \underline{6.42 \times 10^{-5}}$$