

Name: Selected Answers Period: \_\_\_\_\_

Score: \_\_\_\_\_

## HW 6-3: Multiply & Divide with Sci. Notation

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Write the number in scientific notation.

1. 89,000

$$8.9 \times 10^4$$

3. 78,900,000

$$7.89 \times 10^7$$

2. 0.00002007

4. 0.000001

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Evaluate each expression. Express the result in scientific notation.

5.  $(3.9 \times 10^2)(2.3 \times 10^6)$

$$8.97 \times 10^8$$

6.  $(4.18 \times 10^{-4})(9 \times 10^{-4})$

7.  $(9.75 \times 10^3)(8.4 \times 10^{-6})$

$$8.19 \times 10^{-2}$$

8.  $\frac{9.45 \times 10^{10}}{1.5 \times 10^6}$

Evaluate each expression. Express the result in scientific notation.

9.  $\frac{1.14 \times 10^6}{4.8 \times 10^{-6}}$

$$2.375 \times 10^{11}$$

10.  $\frac{9 \times 10^{-11}}{2.4 \times 10^8}$

Evaluate each expression. Express the result in scientific notation.

11.  $(3.7 \times 10^{-2})(1.2 \times 10^3)$

$$4.44 \times 10^1$$

12.  $\frac{3.24 \times 10^{-4}}{8.1 \times 10^{-7}}$

13. Convert the following to scientific notation and identify the expression that does not belong.

$$14.28 \times 10^9$$

$$(3.4 \times 10^6)(4.2 \times 10^3)$$

$$1.4 \times 10^9$$

$$(3.4)(4.2) \times 10^{(6+3)}$$

Review:

Evaluate each expression. Express the result in scientific notation.

14.  $(5.8 \times 10^5)(6.4 \times 10^2)$

15.  $(3.92 \times 10^6)(2.2 \times 10^4)$

$$8.624 \times 10^{10}$$

20.  $\frac{2.952 \times 10^5}{3.6 \times 10^3}$

21.  $\frac{2.052 \times 10^7}{5.4 \times 10^4}$

$$3.8 \times 10^2$$

22.  $(6.9 \times 10^7)(2.12 \times 10^5)$

23.  $(1.78 \times 10^4) + (5.35 \times 10^3)$

$$2.315 \times 10^4$$

24.  $(8.4 \times 10^7) - (6.3 \times 10^6)$

25.  $(9.62 \times 10^5) - (2.58 \times 10^3)$

$$9.5942 \times 10^5$$