**Scientific Notation Multiplying and Dividing**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Solve the following problems involving multiplication and division of numbers in scientific notation. Express your answers in scientific notation.

 **Open Ended Questions**

1. $(3×10^{5})×(2×10^{3})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. $(4×10^{6})÷(2×10^{2})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. $(5×10^{7})×(3×10^{−2})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. $(6×10^{9})÷(3×10^{3})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. $(7×10^{4})×(2×10^{2})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. $(8×10^{8})÷(4×10^{4})$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **Multiple Choice Questions**

1. Express the number 3,600,000 in scientific notation.

a) $3.6×10^{6}$

b) $36×10^{5}$

c) $3.6×10^{5}$

d) $36×10^{6}$

2. Express the number 0.00045 in scientific notation.

a) $4.5×10^{−4}$

b) $45×10^{−5}$

c) $4.5×10^{−5}$

d) $45×10^{−4}$

3. Multiply $(2×10^{3})×(3×10^{4})$.

a) $6×10^{7}$

b) $5×10^{7}$

c) $6×10^{8}$

d) $5×10^{8}$

4. Divide $(8×10^{5})÷(2×10^{2})$.

a) $4×10^{3}$

b) $4×10^{2}$

c) $6×10^{3}$

d) $6×10^{2}$

5. Express the product $(4×10^{2})×(5×10^{3})$ in scientific notation.

a) $2×10^{6}$

b) $20×10^{5}$

c) $2×10^{5}$

d) $20×10^{6}$

6. Express the quotient $(9×10^{6})÷(3×10^{2})$ in scientific notation.

a) $3×10^{4}$

b) $3×10^{5}$

c) $6×10^{4}$

d) $6×10^{5}$

**Scientific Notation Multiplying and Dividing - Answers**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Solve the following problems involving multiplication and division of numbers in scientific notation. Express your answers in scientific notation.

 **Open Ended Questions**

1. $(3×10^{5})×(2×10^{3})$

$6×10^{8}$

2. $(4×10^{6})÷(2×10^{2})$

$2×10^{4}$

3. $(5×10^{7})×(3×10^{−2})$

$1.5×10^{6}$

4. $(6×10^{9})÷(3×10^{3})$

$2×10^{6}$

5. $(7×10^{4})×(2×10^{2})$

$1.4×10^{7}$

6. $(8×10^{8})÷(4×10^{4})$

$2×10^{4}$

 **Multiple Choice Questions**

1. Express the number 3,600,000 in scientific notation.

a) $3.6×10^{6}$

b) $36×10^{5}$

c) $3.6×10^{5}$

d) $36×10^{6}$

2. Express the number 0.00045 in scientific notation.

a) $4.5×10^{−4}$

b) $45×10^{−5}$

c) $4.5×10^{−5}$

d) $45×10^{−4}$

3. Multiply $(2×10^{3})×(3×10^{4})$.

a) $6×10^{7}$

b) $5×10^{7}$

c) $6×10^{8}$

d) $5×10^{8}$

4. Divide $(8×10^{5})÷(2×10^{2})$.

a) $4×10^{3}$

b) $4×10^{2}$

c) $6×10^{3}$

d) $6×10^{2}$

5. Express the product $(4×10^{2})×(5×10^{3})$ in scientific notation.

a) $2×10^{6}$

b) $20×10^{5}$

c) $2×10^{5}$

d) $20×10^{6}$

6. Express the quotient $(9×10^{6})÷(3×10^{2})$ in scientific notation.

a) $3×10^{4}$

b) $3×10^{5}$

c) $6×10^{4}$

d) $6×10^{5}$