**Advanced Scientific Notation Multiplying and Dividing**

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

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

 **Open Ended Questions**

1. $(3.5×10^{8})×(4×10^{5})$

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2. $(6×10^{7})÷(2.5×10^{3})$

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3. $(7.2×10^{6})×(3.3×10^{−4})$

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4. $(9×10^{9})÷(4.5×10^{4})$

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5. $(8.1×10^{4})×(5×10^{3})$

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6. $(1.2×10^{8})÷(3×10^{2})$

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7. $(2.5×10^{1}1)×(4×10^{−3})$

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8. $(7.5×10^{1}0)÷(5×10^{5})$

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 **Multiple Choice Questions**

1. $(3.5×10^{7})×(2.1×10^{4})$

a) $7.35×10^{11}$

b) $7.35×10^{10}$

c) $7.35×10^{12}$

d) $7.35×10^{9}$

2. $(4.2×10^{8})÷(6×10^{3})$

a) $7×10^{4}$

b) $0.7×10^{5}$

c) $7×10^{5}$

d) $0.7×10^{4}$

3. $(5.6×10^{9})×(3.3×10^{−2})$

a) $1.848×10^{8}$

b) $18.48×10^{7}$

c) $1.848×10^{7}$

d) $18.48×10^{6}$

4. $(7.8×10^{10})÷(1.3×10^{5})$

a) $6×10^{5}$

b) $6×10^{6}$

c) $6×10^{4}$

d) $6×10^{3}$

5. $(9.1×10^{6})×(4.4×10^{3})$

a) $4.004×10^{10}$

b) $40.04×10^{9}$

c) $4.004×10^{9}$

d) $40.04×10^{10}$

6. $(1.2×10^{7})÷(3×10^{−2})$

a) $4×10^{8}$

b) $0.4×10^{9}$

c) $4×10^{9}$

d) $0.4×10^{8}$

**Advanced Scientific Notation Multiplying and Dividing - Answers**

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

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

 **Open Ended Questions**

1. $(3.5×10^{8})×(4×10^{5})$

$1.4×10^{14}$

2. $(6×10^{7})÷(2.5×10^{3})$

$2.4×10^{4}$

3. $(7.2×10^{6})×(3.3×10^{−4})$

$2.376×10^{3}$

4. $(9×10^{9})÷(4.5×10^{4})$

$2×10^{5}$

5. $(8.1×10^{4})×(5×10^{3})$

$4.05×10^{8}$

6. $(1.2×10^{8})÷(3×10^{2})$

$4×10^{5}$

7. $(2.5×10^{1}1)×(4×10^{−3})$

$1×10^{9}$

8. $(7.5×10^{1}0)÷(5×10^{5})$

$1.5×10^{5}$

 **Multiple Choice Questions**

1. $(3.5×10^{7})×(2.1×10^{4})$

a) $7.35×10^{11}$

b) $7.35×10^{10}$

c) $7.35×10^{12}$

d) $7.35×10^{9}$

2. $(4.2×10^{8})÷(6×10^{3})$

a) $7×10^{4}$

b) $0.7×10^{5}$

c) $7×10^{5}$

d) $0.7×10^{4}$

3. $(5.6×10^{9})×(3.3×10^{−2})$

a) $1.848×10^{8}$

b) $18.48×10^{7}$

c) $1.848×10^{7}$

d) $18.48×10^{6}$

4. $(7.8×10^{10})÷(1.3×10^{5})$

a) $6×10^{5}$

b) $6×10^{6}$

c) $6×10^{4}$

d) $6×10^{3}$

5. $(9.1×10^{6})×(4.4×10^{3})$

a) $4.004×10^{10}$

b) $40.04×10^{9}$

c) $4.004×10^{9}$

d) $40.04×10^{10}$

6. $(1.2×10^{7})÷(3×10^{−2})$

a) $4×10^{8}$

b) $0.4×10^{9}$

c) $4×10^{9}$

d) $0.4×10^{8}$