

## More Scientific Notation Practice

Name: \_\_\_\_\_

Key

For 1–6, add or subtract each and write your answer in scientific notation.

1.  $3.1 \times 10^7 + 2.4 \times 10^5$

$$310 \times 10^5 + 2.4 \times 10^5$$
$$312.4 \times 10^5$$

#1 answer:  $3.124 \times 10^7$

2.  $7.2 \times 10^{11} - 1.1 \times 10^9$

$$720 \times 10^9 - 1.1 \times 10^9$$
$$718.9 \times 10^9$$

#2 answer:  $7.189 \times 10^{11}$

3.  $6.5 \times 10^8 + 3.3 \times 10^5$

$$6,500 \times 10^5 + 3.3 \times 10^5$$
$$6,503.3 \times 10^5$$

#3 answer:  $6.5033 \times 10^8$

4.  $9.9 \times 10^{11} - 2 \times 10^{110}$

$$99 \times 10^{110} - 2 \times 10^{110}$$
$$97 \times 10^{110}$$

#4 answer:  $9.7 \times 10^{111}$

5.  $6.5 \times 10^{80} + 3.3 \times 10^{83}$

$$6.5 \times 10^{80} + 3,300 \times 10^{80}$$
$$3,306.5 \times 10^{80}$$

#5 answer:  $3.3065 \times 10^{83}$

6.  $2 \times 10^{111} - 9.9 \times 10^{110}$

$$20 \times 10^{110} - 9.9 \times 10^{110}$$
$$10.1 \times 10^{110}$$

#6 answer:  $1.01 \times 10^{111}$

For 7–12, multiply or divide each and write your answer in scientific notation.

7.  $(6.5 \times 10^8)(3.3 \times 10^5)$

$$6.5 \cdot 3.3 \cdot 10^8 \cdot 10^5$$

$$21.45 \cdot 10^{8+5}$$

$$21.45 \times 10^{13}$$

#7 answer:  $2.145 \times 10^{14}$

8.  $(1.5 \times 10^{15})(1.5 \times 10^5)$

$$1.5 \cdot 1.5 \cdot 10^{15} \cdot 10^5$$

$$2.25 \cdot 10^{15+5}$$

$$2.25 \times 10^{20}$$

#8 answer:  $2.25 \times 10^{20}$

9.  $\frac{8.4 \times 10^{87}}{2.1 \times 10^{80}}$

$$\frac{8.4}{2.1} \cdot \frac{10^{87}}{10^{80}}$$

$$4 \cdot 10^{87-80}$$

$$4 \times 10^7$$

#9 answer:  $4 \times 10^7$

10.  $\frac{4.24 \times 10^{91}}{2.12 \times 10^{80}}$

$$\frac{4.24}{2.12} \cdot \frac{10^{91}}{10^{80}}$$

$$2 \cdot 10^{91-80}$$

$$2 \times 10^{11}$$

#10 answer:  $2 \times 10^{11}$

11.  $(9.2 \times 10^{24})(1.1 \times 10^{21})$

$$9.2 \cdot 1.1 \cdot 10^{24} \cdot 10^{21}$$

$$10.12 \cdot 10^{24+21}$$

$$10.12 \cdot 10^{45}$$

#11 answer:  $1.012 \times 10^{46}$

12.  $\frac{2.24 \times 10^{19}}{4 \times 10^{12}}$

$$\frac{2.24}{4} \cdot \frac{10^{19}}{10^{12}}$$

$$.56 \cdot 10^{19-12}$$

$$.56 \cdot 10^7$$

#12 answer:  $5.6 \times 10^6$