## Operations With Scientific Notation

Simplify. Write each answer in scientific notation.

1) 
$$(1.08 \times 10^{-3})(9.3 \times 10^{-3})$$

2) 
$$(2 \times 10^{-4})(8.1 \times 10^{-1})$$

3) 
$$(2.32 \times 10^{-6})(4 \times 10^{-5})$$

4) 
$$(3.48 \times 10^3)(9.8 \times 10^4)$$

5) 
$$(7.1 \times 10^{-5})(6.7 \times 10^{-6})$$

6) 
$$(6 \times 10^3)(9.91 \times 10^0)$$

7) 
$$\frac{7.1 \times 10^6}{8.2 \times 10^1}$$

8) 
$$\frac{5.4 \times 10^{-1}}{3.4 \times 10^{1}}$$

9) 
$$\frac{4 \times 10^4}{3.63 \times 10^{-4}}$$

10) 
$$\frac{9 \times 10^{-5}}{9.24 \times 10^{-6}}$$

11) 
$$\frac{8.42 \times 10^3}{5 \times 10^2}$$

12) 
$$\frac{8.9 \times 10^6}{8.4 \times 10^6}$$

13) 
$$(8.9 \times 10^5)^4$$

14) 
$$(4 \times 10^{-5})^{-6}$$

15)  $(6 \times 10^{-5})^3$ 

16)  $(6.3 \times 10^2)^{-6}$ 

17)  $(5.21 \times 10^{-5})^2$ 

18)  $(2.4 \times 10^{-5})^4$ 

 $19) \ \frac{3 \times 10^{-2}}{8 \times 10^{-1}}$ 

 $20) \ \frac{4.1 \times 10^4}{1.28 \times 10^{-5}}$ 

 $21) \ \frac{1.91 \times 10^3}{5 \times 10^{-4}}$ 

 $22) \ \frac{1.62 \times 10^{-6}}{5.3 \times 10^{6}}$ 

23)  $\frac{3.59 \times 10^{-2}}{2.22 \times 10^{1}}$ 

24)  $(8.8 \times 10^{-5})^{-5}$ 

 $25) \ \frac{6 \times 10^{-3}}{8.08 \times 10^{-2}}$ 

26)  $(3.5 \times 10^{-2})(9 \times 10^{4})$ 

27)  $(8.8 \times 10^2)(2.25 \times 10^{-2})$ 

 $28) \ \frac{1.18 \times 10^{-4}}{3 \times 10^{0}}$ 

## Operations With Scientific Notation

Simplify. Write each answer in scientific notation.

1) 
$$(1.08 \times 10^{-3})(9.3 \times 10^{-3})$$
  
 $1.004 \times 10^{-5}$ 

2) 
$$(2 \times 10^{-4})(8.1 \times 10^{-1})$$
  
 $1.62 \times 10^{-4}$ 

3) 
$$(2.32 \times 10^{-6})(4 \times 10^{-5})$$
  
 $9.28 \times 10^{-11}$ 

4) 
$$(3.48 \times 10^3)(9.8 \times 10^4)$$
  
 $3.41 \times 10^8$ 

5) 
$$(7.1 \times 10^{-5})(6.7 \times 10^{-6})$$
  
 $4.757 \times 10^{-10}$ 

6) 
$$(6 \times 10^3)(9.91 \times 10^0)$$
  
 $5.946 \times 10^4$ 

7) 
$$\frac{7.1 \times 10^6}{8.2 \times 10^1}$$
$$8.659 \times 10^4$$

8) 
$$\frac{5.4 \times 10^{-1}}{3.4 \times 10^{1}}$$
$$1.588 \times 10^{-2}$$

9) 
$$\frac{4 \times 10^4}{3.63 \times 10^{-4}}$$
$$1.102 \times 10^8$$

10) 
$$\frac{9 \times 10^{-5}}{9.24 \times 10^{-6}}$$
$$9.74 \times 10^{0}$$

11) 
$$\frac{8.42 \times 10^3}{5 \times 10^2}$$
$$1.684 \times 10^1$$

12) 
$$\frac{8.9 \times 10^6}{8.4 \times 10^6}$$
$$1.06 \times 10^0$$

13) 
$$(8.9 \times 10^5)^4$$
  
 $6.274 \times 10^{23}$ 

14) 
$$(4 \times 10^{-5})^{-6}$$
  
2.441 × 10<sup>26</sup>

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15) 
$$(6 \times 10^{-5})^3$$
  
 $2.16 \times 10^{-13}$ 

16) 
$$(6.3 \times 10^2)^{-6}$$
  
 $1.599 \times 10^{-17}$ 

17) 
$$(5.21 \times 10^{-5})^2$$
  
 $2.714 \times 10^{-9}$ 

18) 
$$(2.4 \times 10^{-5})^4$$
  
 $3.318 \times 10^{-19}$ 

19) 
$$\frac{3 \times 10^{-2}}{8 \times 10^{-1}}$$
$$3.75 \times 10^{-2}$$

$$20) \ \frac{4.1 \times 10^4}{1.28 \times 10^{-5}}$$
$$3.203 \times 10^9$$

21) 
$$\frac{1.91 \times 10^{3}}{5 \times 10^{-4}}$$
$$3.82 \times 10^{6}$$

22) 
$$\frac{1.62 \times 10^{-6}}{5.3 \times 10^{6}}$$
$$3.057 \times 10^{-13}$$

23) 
$$\frac{3.59 \times 10^{-2}}{2.22 \times 10^{1}}$$
$$1.617 \times 10^{-3}$$

24) 
$$(8.8 \times 10^{-5})^{-5}$$
  
 $1.895 \times 10^{20}$ 

25) 
$$\frac{6 \times 10^{-3}}{8.08 \times 10^{-2}}$$
$$7.426 \times 10^{-2}$$

26) 
$$(3.5 \times 10^{-2})(9 \times 10^{4})$$
  
 $3.15 \times 10^{3}$ 

27) 
$$(8.8 \times 10^{2})(2.25 \times 10^{-2})$$
  
 $1.98 \times 10^{1}$ 

28) 
$$\frac{1.18 \times 10^{-4}}{3 \times 10^{0}}$$
$$3.933 \times 10^{-5}$$

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