

## Operations With Scientific Notation

Simplify. Write each answer in scientific notation.

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

$$(1.08 * 9.3)$$

make smaller  $10,044 * 10^{-6}$  ↓ make bigger  
 $1.0044 * 10^{-5}$

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

$$(2.32 * 4)$$

$$9.28 * 10^{-11}$$

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

$$(2 * 8.1)$$

$$16.2 * 10^{-5}$$

$$1.62 * 10^{-4}$$

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

$$(3.48 * 9.8) * 10^7$$

$$34.104 * 10^7$$

$$3.4104 * 10^8$$

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

$$(7.1 * 6.7)$$

$$47.57 * 10^{-11}$$

$$4.757 * 10^{-10}$$

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

$$(6 * 9.91)$$

$$59.46 * 10^3$$

$$5.946 * 10^4$$

$$7) \frac{7.1 \times 10^6}{8.2 \times 10^1} \quad 6 - 1 = 5$$

$$86585... * 10^5$$

$$8.6585 * 10^4$$

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

$$1.5882 * 10^{-2}$$

if you rounded differently that's ok!

$$9) \frac{4 \times 10^4}{3.63 \times 10^{-4}} \quad 4 - (-4) = 8$$

$$1.1019 * 10^8$$

$$10) \frac{9 \times 10^{-5}}{9.24 \times 10^{-6}} \quad -5 - (-6) = -5 + 6$$

$$9.7403 * 10^1$$

$$9.7403 * 10^0 \text{ or } 9.7403$$

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

$$1.684 * 10^1$$

$$12) \frac{8.9 \times 10^6}{8.4 \times 10^6} \quad 6 - 6 = 0$$

$$1.0595 * 10^0 \text{ or } 1.0595$$