



## Finding Relative Value with Powers of Ten

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

Solve each problem. Answer as a decimal (if necessary).

Answers

1)  $3 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^4$

1. \_\_\_\_\_

2)  $6 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^7$

2. \_\_\_\_\_

3)  $2 \times 10^9$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

3. \_\_\_\_\_

4)  $7 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^3$

4. \_\_\_\_\_

5)  $2 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^4$

5. \_\_\_\_\_

6)  $3 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^6$

6. \_\_\_\_\_

7)  $5 \times 10^9$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^8$

7. \_\_\_\_\_

8)  $7 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^9$

8. \_\_\_\_\_

9)  $9 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^6$

9. \_\_\_\_\_



# Finding Relative Value with Powers of Ten

Name: **Answer Key**

Solve each problem. Answer as a decimal (if necessary).

1)  $3 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^4$

$$\frac{3 \times 10^8}{5 \times 10^4} = \frac{3}{5} \times \frac{10^8}{10^4} = \frac{3}{5} \times 10^4 = 0.6 \times 10^4$$

2)  $6 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^7$

$$\frac{6 \times 10^4}{9 \times 10^7} = \frac{6}{9} \times \frac{10^4}{10^7} = \frac{2}{3} \times 10^{-3} = 0.667 \times 10^{-3}$$

3)  $2 \times 10^9$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

$$\frac{2 \times 10^9}{3 \times 10^6} = \frac{2}{3} \times \frac{10^9}{10^6} = \frac{2}{3} \times 10^3 = 0.667 \times 10^3$$

4)  $7 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^3$

$$\frac{7 \times 10^2}{3 \times 10^3} = \frac{7}{3} \times \frac{10^2}{10^3} = \frac{7}{3} \times 10^{-1} = 2.333 \times 10^{-1}$$

5)  $2 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^4$

$$\frac{2 \times 10^8}{7 \times 10^4} = \frac{2}{7} \times \frac{10^8}{10^4} = \frac{2}{7} \times 10^4 = 0.286 \times 10^4$$

6)  $3 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^6$

$$\frac{3 \times 10^5}{5 \times 10^6} = \frac{3}{5} \times \frac{10^5}{10^6} = \frac{3}{5} \times 10^{-1} = 0.6 \times 10^{-1}$$

7)  $5 \times 10^9$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^8$

$$\frac{5 \times 10^9}{7 \times 10^8} = \frac{5}{7} \times \frac{10^9}{10^8} = \frac{5}{7} \times 10^1 = 0.714 \times 10^1$$

8)  $7 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^9$

$$\frac{7 \times 10^4}{4 \times 10^9} = \frac{7}{4} \times \frac{10^4}{10^9} = \frac{7}{4} \times 10^{-5} = 1.75 \times 10^{-5}$$

9)  $9 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^6$

$$\frac{9 \times 10^2}{7 \times 10^6} = \frac{9}{7} \times \frac{10^2}{10^6} = \frac{9}{7} \times 10^{-4} = 1.286 \times 10^{-4}$$

## Answers

1. **6,000**

2. **0.000667**

3. **667**

4. **0.2333**

5. **2,860**

6. **0.06**

7. **7.14**

8. **0.0000175**

9. **0.0001286**