



## Finding Relative Value with Powers of Ten

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

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

Answers

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

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

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

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

3)  $2 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

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

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

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

5)  $9 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^6$

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

6)  $9 \times 10^6$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^2$

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

7)  $6 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

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

8)  $2 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^9$

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

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

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



# Finding Relative Value with Powers of Ten

Name: **Answer Key**

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

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

$$\frac{5 \times 10^4}{8 \times 10^3} = \frac{5}{8} \times \frac{10^4}{10^3} = \frac{5}{8} \times 10^1 = 0.625 \times 10^1$$

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

$$\frac{4 \times 10^2}{5 \times 10^4} = \frac{4}{5} \times \frac{10^2}{10^4} = \frac{4}{5} \times 10^{-2} = 0.8 \times 10^{-2}$$

3)  $2 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

$$\frac{2 \times 10^8}{3 \times 10^6} = \frac{2}{3} \times \frac{10^8}{10^6} = \frac{2}{3} \times 10^2 = 0.667 \times 10^2$$

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

$$\frac{4 \times 10^4}{7 \times 10^9} = \frac{4}{7} \times \frac{10^4}{10^9} = \frac{4}{7} \times 10^{-5} = 0.571 \times 10^{-5}$$

5)  $9 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^6$

$$\frac{9 \times 10^4}{6 \times 10^6} = \frac{9}{6} \times \frac{10^4}{10^6} = \frac{3}{2} \times 10^{-2} = 1.5 \times 10^{-2}$$

6)  $9 \times 10^6$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^2$

$$\frac{9 \times 10^6}{5 \times 10^2} = \frac{9}{5} \times \frac{10^6}{10^2} = \frac{9}{5} \times 10^4 = 1.8 \times 10^4$$

7)  $6 \times 10^4$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^6$

$$\frac{6 \times 10^4}{3 \times 10^6} = \frac{6}{3} \times \frac{10^4}{10^6} = \frac{2}{1} \times 10^{-2} = 2 \times 10^{-2}$$

8)  $2 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $5 \times 10^9$

$$\frac{2 \times 10^3}{5 \times 10^9} = \frac{2}{5} \times \frac{10^3}{10^9} = \frac{2}{5} \times 10^{-6} = 0.4 \times 10^{-6}$$

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

$$\frac{9 \times 10^8}{8 \times 10^4} = \frac{9}{8} \times \frac{10^8}{10^4} = \frac{9}{8} \times 10^4 = 1.125 \times 10^4$$

## Answers

1. **6.25**

2. **0.008**

3. **66.7**

4. **0.00000571**

5. **0.015**

6. **18,000**

7. **0.02**

8. **0.0000004**

9. **11,250**