



## Finding Relative Value with Powers of Ten

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

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

Answers

1)  $7 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^9$

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

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

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

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

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

4)  $8 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^2$

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

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

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

6)  $4 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^5$

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

7)  $7 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^3$

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

8)  $3 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^4$

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

9)  $2 \times 10^5$  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)  $7 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^9$

$$\frac{7 \times 10^8}{3 \times 10^9} = \frac{7}{3} \times \frac{10^8}{10^9} = \frac{7}{3} \times 10^{-1} = 2.333 \times 10^{-1}$$

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

$$\frac{3 \times 10^3}{6 \times 10^8} = \frac{3}{6} \times \frac{10^3}{10^8} = \frac{1}{2} \times 10^{-5} = 0.5 \times 10^{-5}$$

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

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

4)  $8 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^2$

$$\frac{8 \times 10^8}{3 \times 10^2} = \frac{8}{3} \times \frac{10^8}{10^2} = \frac{8}{3} \times 10^6 = 2.667 \times 10^6$$

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

$$\frac{8 \times 10^7}{2 \times 10^5} = \frac{8}{2} \times \frac{10^7}{10^5} = \frac{4}{1} \times 10^2 = 4 \times 10^2$$

6)  $4 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^5$

$$\frac{4 \times 10^8}{3 \times 10^5} = \frac{4}{3} \times \frac{10^8}{10^5} = \frac{4}{3} \times 10^3 = 1.333 \times 10^3$$

7)  $7 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^3$

$$\frac{7 \times 10^8}{9 \times 10^3} = \frac{7}{9} \times \frac{10^8}{10^3} = \frac{7}{9} \times 10^5 = 0.778 \times 10^5$$

8)  $3 \times 10^8$  is \_\_\_\_\_  $\times$  the value of  $9 \times 10^4$

$$\frac{3 \times 10^8}{9 \times 10^4} = \frac{3}{9} \times \frac{10^8}{10^4} = \frac{1}{3} \times 10^4 = 0.333 \times 10^4$$

9)  $2 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $8 \times 10^4$

$$\frac{2 \times 10^5}{8 \times 10^4} = \frac{2}{8} \times \frac{10^5}{10^4} = \frac{1}{4} \times 10^1 = 0.25 \times 10^1$$

## Answers

1. **0.2333**

2. **0.000005**

3. **0.3**

4. **2,667,000**

5. **400**

6. **1,333**

7. **77,800**

8. **3,330**

9. **2.5**