



## Finding Relative Value with Powers of Ten

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

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

Answers

1)  $4 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^4$

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

2)  $6 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^7$

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

3)  $6 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^3$

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

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

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

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

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

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

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

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

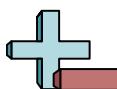
7. \_\_\_\_\_

8)  $5 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^2$

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

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

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



# Finding Relative Value with Powers of Ten

Name: **Answer Key**

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

1)  $4 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^4$

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

2)  $6 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $3 \times 10^7$

$$\frac{6 \times 10^3}{3 \times 10^7} = \frac{6}{3} \times \frac{10^3}{10^7} = \frac{2}{1} \times 10^{-4} = 2 \times 10^{-4}$$

3)  $6 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^3$

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

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

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

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

$$\frac{2 \times 10^5}{7 \times 10^8} = \frac{2}{7} \times \frac{10^5}{10^8} = \frac{2}{7} \times 10^{-3} = 0.286 \times 10^{-3}$$

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

$$\frac{6 \times 10^2}{7 \times 10^9} = \frac{6}{7} \times \frac{10^2}{10^9} = \frac{6}{7} \times 10^{-7} = 0.857 \times 10^{-7}$$

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

$$\frac{3 \times 10^8}{9 \times 10^3} = \frac{3}{9} \times \frac{10^8}{10^3} = \frac{1}{3} \times 10^5 = 0.333 \times 10^5$$

8)  $5 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^2$

$$\frac{5 \times 10^5}{6 \times 10^2} = \frac{5}{6} \times \frac{10^5}{10^2} = \frac{5}{6} \times 10^3 = 0.833 \times 10^3$$

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

$$\frac{8 \times 10^8}{3 \times 10^9} = \frac{8}{3} \times \frac{10^8}{10^9} = \frac{8}{3} \times 10^{-1} = 2.667 \times 10^{-1}$$

## Answers

1. **20**

2. **0.0002**

3. **300**

4. **0.002**

5. **0.000286**

6. **0.0000000857**

7. **33,300**

8. **833**

9. **0.2667**