



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

1)  $5 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^9$

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

3)  $6 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^6$

4)  $3 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^7$

5)  $2 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^4$

6)  $5 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^7$

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

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

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

**Answers**

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

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

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

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

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

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

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

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

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



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

1)  $5 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $2 \times 10^9$

$$\frac{5 \times 10^2}{2 \times 10^9} = \frac{5}{2} \times \frac{10^2}{10^9} = \frac{5}{2} \times 10^{-7} = 2.5 \times 10^{-7}$$

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

$$\frac{7 \times 10^7}{3 \times 10^9} = \frac{7}{3} \times \frac{10^7}{10^9} = \frac{7}{3} \times 10^{-2} = 2.333 \times 10^{-2}$$

3)  $6 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $7 \times 10^6$

$$\frac{6 \times 10^5}{7 \times 10^6} = \frac{6}{7} \times \frac{10^5}{10^6} = \frac{6}{7} \times 10^{-1} = 0.857 \times 10^{-1}$$

4)  $3 \times 10^5$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^7$

$$\frac{3 \times 10^5}{4 \times 10^7} = \frac{3}{4} \times \frac{10^5}{10^7} = \frac{3}{4} \times 10^{-2} = 0.75 \times 10^{-2}$$

5)  $2 \times 10^2$  is \_\_\_\_\_  $\times$  the value of  $6 \times 10^4$

$$\frac{2 \times 10^2}{6 \times 10^4} = \frac{2}{6} \times \frac{10^2}{10^4} = \frac{1}{3} \times 10^{-2} = 0.333 \times 10^{-2}$$

6)  $5 \times 10^3$  is \_\_\_\_\_  $\times$  the value of  $4 \times 10^7$

$$\frac{5 \times 10^3}{4 \times 10^7} = \frac{5}{4} \times \frac{10^3}{10^7} = \frac{5}{4} \times 10^{-4} = 1.25 \times 10^{-4}$$

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

$$\frac{9 \times 10^7}{8 \times 10^5} = \frac{9}{8} \times \frac{10^7}{10^5} = \frac{9}{8} \times 10^2 = 1.125 \times 10^2$$

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

$$\frac{9 \times 10^9}{7 \times 10^5} = \frac{9}{7} \times \frac{10^9}{10^5} = \frac{9}{7} \times 10^4 = 1.286 \times 10^4$$

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

$$\frac{2 \times 10^2}{9 \times 10^4} = \frac{2}{9} \times \frac{10^2}{10^4} = \frac{2}{9} \times 10^{-2} = 0.222 \times 10^{-2}$$

**Answers**

1. **0.00000025**

2. **0.02333**

3. **0.0857**

4. **0.0075**

5. **0.00333**

6. **0.000125**

7. **112.5**

8. **12,860**

9. **0.00222**