



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

1) 5×10^2 is _____ \times the value of 2×10^9

2) 7×10^7 is _____ \times the value of 3×10^9

3) 6×10^5 is _____ \times the value of 7×10^6

4) 3×10^5 is _____ \times the value of 4×10^7

5) 2×10^2 is _____ \times the value of 6×10^4

6) 5×10^3 is _____ \times the value of 4×10^7

7) 9×10^7 is _____ \times the value of 8×10^5

8) 9×10^9 is _____ \times the value of 7×10^5

9) 2×10^2 is _____ \times the value of 9×10^4

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 5×10^2 is _____ \times the value of 2×10^9

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

2) 7×10^7 is _____ \times the value of 3×10^9

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

3) 6×10^5 is _____ \times the value of 7×10^6

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

4) 3×10^5 is _____ \times the value of 4×10^7

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

5) 2×10^2 is _____ \times the value of 6×10^4

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

6) 5×10^3 is _____ \times the value of 4×10^7

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

7) 9×10^7 is _____ \times the value of 8×10^5

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

8) 9×10^9 is _____ \times the value of 7×10^5

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

9) 2×10^2 is _____ \times the value of 9×10^4

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

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**