



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

1) 7×10^7 is _____ \times the value of 8×10^9

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

3) 8×10^9 is _____ \times the value of 9×10^4

4) 8×10^9 is _____ \times the value of 2×10^6

5) 7×10^9 is _____ \times the value of 2×10^2

6) 7×10^8 is _____ \times the value of 8×10^6

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

8) 5×10^5 is _____ \times the value of 2×10^3

9) 3×10^8 is _____ \times the value of 8×10^5

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 7×10^7 is _____ \times the value of 8×10^9

$$\frac{7 \times 10^7}{8 \times 10^9} = \frac{7}{8} \times \frac{10^7}{10^9} = \frac{7}{8} \times 10^{-2} = 0.875 \times 10^{-2}$$

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

$$\frac{7 \times 10^9}{3 \times 10^3} = \frac{7}{3} \times \frac{10^9}{10^3} = \frac{7}{3} \times 10^6 = 2.333 \times 10^6$$

3) 8×10^9 is _____ \times the value of 9×10^4

$$\frac{8 \times 10^9}{9 \times 10^4} = \frac{8}{9} \times \frac{10^9}{10^4} = \frac{8}{9} \times 10^5 = 0.889 \times 10^5$$

4) 8×10^9 is _____ \times the value of 2×10^6

$$\frac{8 \times 10^9}{2 \times 10^6} = \frac{8}{2} \times \frac{10^9}{10^6} = \frac{4}{1} \times 10^3 = 4 \times 10^3$$

5) 7×10^9 is _____ \times the value of 2×10^2

$$\frac{7 \times 10^9}{2 \times 10^2} = \frac{7}{2} \times \frac{10^9}{10^2} = \frac{7}{2} \times 10^7 = 3.5 \times 10^7$$

6) 7×10^8 is _____ \times the value of 8×10^6

$$\frac{7 \times 10^8}{8 \times 10^6} = \frac{7}{8} \times \frac{10^8}{10^6} = \frac{7}{8} \times 10^2 = 0.875 \times 10^2$$

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

$$\frac{7 \times 10^7}{5 \times 10^3} = \frac{7}{5} \times \frac{10^7}{10^3} = \frac{7}{5} \times 10^4 = 1.4 \times 10^4$$

8) 5×10^5 is _____ \times the value of 2×10^3

$$\frac{5 \times 10^5}{2 \times 10^3} = \frac{5}{2} \times \frac{10^5}{10^3} = \frac{5}{2} \times 10^2 = 2.5 \times 10^2$$

9) 3×10^8 is _____ \times the value of 8×10^5

$$\frac{3 \times 10^8}{8 \times 10^5} = \frac{3}{8} \times \frac{10^8}{10^5} = \frac{3}{8} \times 10^3 = 0.375 \times 10^3$$

Answers

1. **0.00875**

2. **2,333,000**

3. **88,900**

4. **4,000**

5. **35,000,000**

6. **87.5**

7. **14,000**

8. **250**

9. **375**