



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

1) 9×10^4 is _____ \times the value of 6×10^8

2) 8×10^9 is _____ \times the value of 5×10^2

3) 7×10^2 is _____ \times the value of 8×10^3

4) 4×10^2 is _____ \times the value of 7×10^3

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

6) 2×10^5 is _____ \times the value of 7×10^4

7) 5×10^8 is _____ \times the value of 7×10^2

8) 5×10^2 is _____ \times the value of 6×10^4

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 9×10^4 is _____ \times the value of 6×10^8

$$\frac{9 \times 10^4}{6 \times 10^8} = \frac{9}{6} \times \frac{10^4}{10^8} = \frac{3}{2} \times 10^{-4} = 1.5 \times 10^{-4}$$

2) 8×10^9 is _____ \times the value of 5×10^2

$$\frac{8 \times 10^9}{5 \times 10^2} = \frac{8}{5} \times \frac{10^9}{10^2} = \frac{8}{5} \times 10^7 = 1.6 \times 10^7$$

3) 7×10^2 is _____ \times the value of 8×10^3

$$\frac{7 \times 10^2}{8 \times 10^3} = \frac{7}{8} \times \frac{10^2}{10^3} = \frac{7}{8} \times 10^{-1} = 0.875 \times 10^{-1}$$

4) 4×10^2 is _____ \times the value of 7×10^3

$$\frac{4 \times 10^2}{7 \times 10^3} = \frac{4}{7} \times \frac{10^2}{10^3} = \frac{4}{7} \times 10^{-1} = 0.571 \times 10^{-1}$$

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

$$\frac{6 \times 10^7}{5 \times 10^4} = \frac{6}{5} \times \frac{10^7}{10^4} = \frac{6}{5} \times 10^3 = 1.2 \times 10^3$$

6) 2×10^5 is _____ \times the value of 7×10^4

$$\frac{2 \times 10^5}{7 \times 10^4} = \frac{2}{7} \times \frac{10^5}{10^4} = \frac{2}{7} \times 10^1 = 0.286 \times 10^1$$

7) 5×10^8 is _____ \times the value of 7×10^2

$$\frac{5 \times 10^8}{7 \times 10^2} = \frac{5}{7} \times \frac{10^8}{10^2} = \frac{5}{7} \times 10^6 = 0.714 \times 10^6$$

8) 5×10^2 is _____ \times the value of 6×10^4

$$\frac{5 \times 10^2}{6 \times 10^4} = \frac{5}{6} \times \frac{10^2}{10^4} = \frac{5}{6} \times 10^{-2} = 0.833 \times 10^{-2}$$

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

$$\frac{5 \times 10^5}{8 \times 10^9} = \frac{5}{8} \times \frac{10^5}{10^9} = \frac{5}{8} \times 10^{-4} = 0.625 \times 10^{-4}$$

Answers1. **0.00015**2. **16,000,000**3. **0.0875**4. **0.0571**5. **1,200**6. **2.86**7. **714,000**8. **0.00833**9. **0.0000625**