



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

1) 9×10^9 is _____ \times the value of 7×10^2

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

3) 6×10^3 is _____ \times the value of 3×10^8

4) 7×10^8 is _____ \times the value of 5×10^9

5) 7×10^5 is _____ \times the value of 3×10^9

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

7) 9×10^8 is _____ \times the value of 7×10^2

8) 7×10^9 is _____ \times the value of 6×10^3

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 9×10^9 is _____ \times the value of 7×10^2

$$\frac{9 \times 10^9}{7 \times 10^2} = \frac{9}{7} \times \frac{10^9}{10^2} = \frac{9}{7} \times 10^7 = 1.286 \times 10^7$$

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

$$\frac{8 \times 10^9}{6 \times 10^8} = \frac{8}{6} \times \frac{10^9}{10^8} = \frac{4}{3} \times 10^1 = 1.333 \times 10^1$$

3) 6×10^3 is _____ \times the value of 3×10^8

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

4) 7×10^8 is _____ \times the value of 5×10^9

$$\frac{7 \times 10^8}{5 \times 10^9} = \frac{7}{5} \times \frac{10^8}{10^9} = \frac{7}{5} \times 10^{-1} = 1.4 \times 10^{-1}$$

5) 7×10^5 is _____ \times the value of 3×10^9

$$\frac{7 \times 10^5}{3 \times 10^9} = \frac{7}{3} \times \frac{10^5}{10^9} = \frac{7}{3} \times 10^{-4} = 2.333 \times 10^{-4}$$

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

$$\frac{3 \times 10^7}{6 \times 10^3} = \frac{3}{6} \times \frac{10^7}{10^3} = \frac{1}{2} \times 10^4 = 0.5 \times 10^4$$

7) 9×10^8 is _____ \times the value of 7×10^2

$$\frac{9 \times 10^8}{7 \times 10^2} = \frac{9}{7} \times \frac{10^8}{10^2} = \frac{9}{7} \times 10^6 = 1.286 \times 10^6$$

8) 7×10^9 is _____ \times the value of 6×10^3

$$\frac{7 \times 10^9}{6 \times 10^3} = \frac{7}{6} \times \frac{10^9}{10^3} = \frac{7}{6} \times 10^6 = 1.167 \times 10^6$$

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

$$\frac{8 \times 10^5}{9 \times 10^8} = \frac{8}{9} \times \frac{10^5}{10^8} = \frac{8}{9} \times 10^{-3} = 0.889 \times 10^{-3}$$

Answers

1. **12,860,000**

2. **13.33**

3. **0.0000**

4. **0.14**

5. **0.0002333**

6. **5,000**

7. **1,286,000**

8. **1,167,000**

9. **0.000889**