



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

1) 3×10^4 is _____ \times the value of 2×10^8

2) 4×10^9 is _____ \times the value of 6×10^3

3) 2×10^2 is _____ \times the value of 3×10^6

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

5) 9×10^4 is _____ \times the value of 2×10^7

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

7) 3×10^4 is _____ \times the value of 4×10^9

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

9) 4×10^6 is _____ \times the value of 7×10^9

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 3×10^4 is _____ \times the value of 2×10^8

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

2) 4×10^9 is _____ \times the value of 6×10^3

$$\frac{4 \times 10^9}{6 \times 10^3} = \frac{4}{6} \times \frac{10^9}{10^3} = \frac{2}{3} \times 10^6 = 0.667 \times 10^6$$

3) 2×10^2 is _____ \times the value of 3×10^6

$$\frac{2 \times 10^2}{3 \times 10^6} = \frac{2}{3} \times \frac{10^2}{10^6} = \frac{2}{3} \times 10^{-4} = 0.667 \times 10^{-4}$$

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

$$\frac{4 \times 10^2}{5 \times 10^8} = \frac{4}{5} \times \frac{10^2}{10^8} = \frac{4}{5} \times 10^{-6} = 0.8 \times 10^{-6}$$

5) 9×10^4 is _____ \times the value of 2×10^7

$$\frac{9 \times 10^4}{2 \times 10^7} = \frac{9}{2} \times \frac{10^4}{10^7} = \frac{9}{2} \times 10^{-3} = 4.5 \times 10^{-3}$$

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

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

7) 3×10^4 is _____ \times the value of 4×10^9

$$\frac{3 \times 10^4}{4 \times 10^9} = \frac{3}{4} \times \frac{10^4}{10^9} = \frac{3}{4} \times 10^{-5} = 0.75 \times 10^{-5}$$

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

$$\frac{6 \times 10^8}{9 \times 10^9} = \frac{6}{9} \times \frac{10^8}{10^9} = \frac{2}{3} \times 10^{-1} = 0.667 \times 10^{-1}$$

9) 4×10^6 is _____ \times the value of 7×10^9

$$\frac{4 \times 10^6}{7 \times 10^9} = \frac{4}{7} \times \frac{10^6}{10^9} = \frac{4}{7} \times 10^{-3} = 0.571 \times 10^{-3}$$

Answers

1. **0.00015**

2. **667,000**

3. **0.0000667**

4. **0.0000008**

5. **0.0045**

6. **0.3**

7. **0.0000075**

8. **0.0667**

9. **0.000571**