



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

1) 9×10^3 is _____ \times the value of 7×10^8

2) 3×10^2 is _____ \times the value of 7×10^6

3) 2×10^9 is _____ \times the value of 6×10^5

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

5) 9×10^2 is _____ \times the value of 5×10^6

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

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

8) 3×10^7 is _____ \times the value of 2×10^9

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 9×10^3 is _____ \times the value of 7×10^8

$$\frac{9 \times 10^3}{7 \times 10^8} = \frac{9}{7} \times \frac{10^3}{10^8} = \frac{9}{7} \times 10^{-5} = 1.286 \times 10^{-5}$$

2) 3×10^2 is _____ \times the value of 7×10^6

$$\frac{3 \times 10^2}{7 \times 10^6} = \frac{3}{7} \times \frac{10^2}{10^6} = \frac{3}{7} \times 10^{-4} = 0.429 \times 10^{-4}$$

3) 2×10^9 is _____ \times the value of 6×10^5

$$\frac{2 \times 10^9}{6 \times 10^5} = \frac{2}{6} \times \frac{10^9}{10^5} = \frac{1}{3} \times 10^4 = 0.333 \times 10^4$$

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

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

5) 9×10^2 is _____ \times the value of 5×10^6

$$\frac{9 \times 10^2}{5 \times 10^6} = \frac{9}{5} \times \frac{10^2}{10^6} = \frac{9}{5} \times 10^{-4} = 1.8 \times 10^{-4}$$

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

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

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

$$\frac{2 \times 10^7}{4 \times 10^2} = \frac{2}{4} \times \frac{10^7}{10^2} = \frac{1}{2} \times 10^5 = 0.5 \times 10^5$$

8) 3×10^7 is _____ \times the value of 2×10^9

$$\frac{3 \times 10^7}{2 \times 10^9} = \frac{3}{2} \times \frac{10^7}{10^9} = \frac{3}{2} \times 10^{-2} = 1.5 \times 10^{-2}$$

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

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

Answers

1. **0.00001286**

2. **0.0000429**

3. **3,330**

4. **22.2**

5. **0.00018**

6. **3.33**

7. **50,000**

8. **0.015**

9. **0.4**