



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

1) 3×10^8 is _____ \times the value of 5×10^9

2) 6×10^8 is _____ \times the value of 7×10^2

3) 8×10^4 is _____ \times the value of 6×10^6

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

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

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

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 3×10^8 is _____ \times the value of 5×10^9

$$\frac{3 \times 10^8}{5 \times 10^9} = \frac{3}{5} \times \frac{10^8}{10^9} = \frac{3}{5} \times 10^{-1} = 0.6 \times 10^{-1}$$

2) 6×10^8 is _____ \times the value of 7×10^2

$$\frac{6 \times 10^8}{7 \times 10^2} = \frac{6}{7} \times \frac{10^8}{10^2} = \frac{6}{7} \times 10^6 = 0.857 \times 10^6$$

3) 8×10^4 is _____ \times the value of 6×10^6

$$\frac{8 \times 10^4}{6 \times 10^6} = \frac{8}{6} \times \frac{10^4}{10^6} = \frac{4}{3} \times 10^{-2} = 1.333 \times 10^{-2}$$

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

$$\frac{4 \times 10^9}{8 \times 10^8} = \frac{4}{8} \times \frac{10^9}{10^8} = \frac{1}{2} \times 10^1 = 0.5 \times 10^1$$

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

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

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

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

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

$$\frac{2 \times 10^7}{3 \times 10^3} = \frac{2}{3} \times \frac{10^7}{10^3} = \frac{2}{3} \times 10^4 = 0.667 \times 10^4$$

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

$$\frac{9 \times 10^4}{4 \times 10^9} = \frac{9}{4} \times \frac{10^4}{10^9} = \frac{9}{4} \times 10^{-5} = 2.25 \times 10^{-5}$$

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

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

Answers

1. 0.06

2. 857,000

3. 0.01333

4. 5

5. 13,330

6. 5

7. 6,670

8. 0.0000225

9. 300