



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

Answers

1) 3×10^6 is _____ \times the value of 9×10^8

1. _____

2) 3×10^3 is _____ \times the value of 7×10^5

2. _____

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

3. _____

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

4. _____

5) 8×10^9 is _____ \times the value of 3×10^6

5. _____

6) 4×10^8 is _____ \times the value of 7×10^2

6. _____

7) 8×10^5 is _____ \times the value of 4×10^3

7. _____

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

8. _____

9) 5×10^3 is _____ \times the value of 4×10^2

9. _____



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

1) 3×10^6 is _____ \times the value of 9×10^8

$$\frac{3 \times 10^6}{9 \times 10^8} = \frac{3}{9} \times \frac{10^6}{10^8} = \frac{1}{3} \times 10^{-2} = 0.333 \times 10^{-2}$$

2) 3×10^3 is _____ \times the value of 7×10^5

$$\frac{3 \times 10^3}{7 \times 10^5} = \frac{3}{7} \times \frac{10^3}{10^5} = \frac{3}{7} \times 10^{-2} = 0.429 \times 10^{-2}$$

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

$$\frac{7 \times 10^3}{3 \times 10^6} = \frac{7}{3} \times \frac{10^3}{10^6} = \frac{7}{3} \times 10^{-3} = 2.333 \times 10^{-3}$$

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

$$\frac{7 \times 10^2}{2 \times 10^5} = \frac{7}{2} \times \frac{10^2}{10^5} = \frac{7}{2} \times 10^{-3} = 3.5 \times 10^{-3}$$

5) 8×10^9 is _____ \times the value of 3×10^6

$$\frac{8 \times 10^9}{3 \times 10^6} = \frac{8}{3} \times \frac{10^9}{10^6} = \frac{8}{3} \times 10^3 = 2.667 \times 10^3$$

6) 4×10^8 is _____ \times the value of 7×10^2

$$\frac{4 \times 10^8}{7 \times 10^2} = \frac{4}{7} \times \frac{10^8}{10^2} = \frac{4}{7} \times 10^6 = 0.571 \times 10^6$$

7) 8×10^5 is _____ \times the value of 4×10^3

$$\frac{8 \times 10^5}{4 \times 10^3} = \frac{8}{4} \times \frac{10^5}{10^3} = \frac{2}{1} \times 10^2 = 2 \times 10^2$$

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

$$\frac{7 \times 10^8}{4 \times 10^5} = \frac{7}{4} \times \frac{10^8}{10^5} = \frac{7}{4} \times 10^3 = 1.75 \times 10^3$$

9) 5×10^3 is _____ \times the value of 4×10^2

$$\frac{5 \times 10^3}{4 \times 10^2} = \frac{5}{4} \times \frac{10^3}{10^2} = \frac{5}{4} \times 10^1 = 1.25 \times 10^1$$

Answers

1. **0.00333**

2. **0.00429**

3. **0.002333**

4. **0.0035**

5. **2,667**

6. **571,000**

7. **200**

8. **1,750**

9. **12.5**



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

Answers

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

1. _____

2) 3×10^3 is _____ \times the value of 6×10^8

2. _____

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

3. _____

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

4. _____

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

5. _____

6) 4×10^8 is _____ \times the value of 3×10^5

6. _____

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

7. _____

8) 3×10^8 is _____ \times the value of 9×10^4

8. _____

9) 2×10^5 is _____ \times the value of 8×10^4

9. _____



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

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

$$\frac{7 \times 10^8}{3 \times 10^9} = \frac{7}{3} \times \frac{10^8}{10^9} = \frac{7}{3} \times 10^{-1} = 2.333 \times 10^{-1}$$

2) 3×10^3 is _____ \times the value of 6×10^8

$$\frac{3 \times 10^3}{6 \times 10^8} = \frac{3}{6} \times \frac{10^3}{10^8} = \frac{1}{2} \times 10^{-5} = 0.5 \times 10^{-5}$$

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

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

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

$$\frac{8 \times 10^8}{3 \times 10^2} = \frac{8}{3} \times \frac{10^8}{10^2} = \frac{8}{3} \times 10^6 = 2.667 \times 10^6$$

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

$$\frac{8 \times 10^7}{2 \times 10^5} = \frac{8}{2} \times \frac{10^7}{10^5} = \frac{4}{1} \times 10^2 = 4 \times 10^2$$

6) 4×10^8 is _____ \times the value of 3×10^5

$$\frac{4 \times 10^8}{3 \times 10^5} = \frac{4}{3} \times \frac{10^8}{10^5} = \frac{4}{3} \times 10^3 = 1.333 \times 10^3$$

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

$$\frac{7 \times 10^8}{9 \times 10^3} = \frac{7}{9} \times \frac{10^8}{10^3} = \frac{7}{9} \times 10^5 = 0.778 \times 10^5$$

8) 3×10^8 is _____ \times the value of 9×10^4

$$\frac{3 \times 10^8}{9 \times 10^4} = \frac{3}{9} \times \frac{10^8}{10^4} = \frac{1}{3} \times 10^4 = 0.333 \times 10^4$$

9) 2×10^5 is _____ \times the value of 8×10^4

$$\frac{2 \times 10^5}{8 \times 10^4} = \frac{2}{8} \times \frac{10^5}{10^4} = \frac{1}{4} \times 10^1 = 0.25 \times 10^1$$

Answers

1. **0.2333**

2. **0.000005**

3. **0.3**

4. **2,667,000**

5. **400**

6. **1,333**

7. **77,800**

8. **3,330**

9. **2.5**



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

Answers

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

1. _____

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

2. _____

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

3. _____

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

4. _____

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

5. _____

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

6. _____

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

7. _____

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

8. _____

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

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**



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



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

1) 5×10^2 is _____ \times the value of 2×10^9

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

3) 6×10^5 is _____ \times the value of 7×10^6

4) 3×10^5 is _____ \times the value of 4×10^7

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

6) 5×10^3 is _____ \times the value of 4×10^7

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 5×10^2 is _____ \times the value of 2×10^9

$$\frac{5 \times 10^2}{2 \times 10^9} = \frac{5}{2} \times \frac{10^2}{10^9} = \frac{5}{2} \times 10^{-7} = 2.5 \times 10^{-7}$$

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

$$\frac{7 \times 10^7}{3 \times 10^9} = \frac{7}{3} \times \frac{10^7}{10^9} = \frac{7}{3} \times 10^{-2} = 2.333 \times 10^{-2}$$

3) 6×10^5 is _____ \times the value of 7×10^6

$$\frac{6 \times 10^5}{7 \times 10^6} = \frac{6}{7} \times \frac{10^5}{10^6} = \frac{6}{7} \times 10^{-1} = 0.857 \times 10^{-1}$$

4) 3×10^5 is _____ \times the value of 4×10^7

$$\frac{3 \times 10^5}{4 \times 10^7} = \frac{3}{4} \times \frac{10^5}{10^7} = \frac{3}{4} \times 10^{-2} = 0.75 \times 10^{-2}$$

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

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

6) 5×10^3 is _____ \times the value of 4×10^7

$$\frac{5 \times 10^3}{4 \times 10^7} = \frac{5}{4} \times \frac{10^3}{10^7} = \frac{5}{4} \times 10^{-4} = 1.25 \times 10^{-4}$$

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

$$\frac{9 \times 10^7}{8 \times 10^5} = \frac{9}{8} \times \frac{10^7}{10^5} = \frac{9}{8} \times 10^2 = 1.125 \times 10^2$$

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

$$\frac{9 \times 10^9}{7 \times 10^5} = \frac{9}{7} \times \frac{10^9}{10^5} = \frac{9}{7} \times 10^4 = 1.286 \times 10^4$$

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

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

Answers

1. **0.00000025**

2. **0.02333**

3. **0.0857**

4. **0.0075**

5. **0.00333**

6. **0.000125**

7. **112.5**

8. **12,860**

9. **0.00222**



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

1) 2×10^7 is _____ \times the value of 8×10^2

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

3) 3×10^4 is _____ \times the value of 8×10^5

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

5) 2×10^4 is _____ \times the value of 3×10^9

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

7) 9×10^4 is _____ \times the value of 3×10^5

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 2×10^7 is _____ \times the value of 8×10^2

$$\frac{2 \times 10^7}{8 \times 10^2} = \frac{2}{8} \times \frac{10^7}{10^2} = \frac{1}{4} \times 10^5 = 0.25 \times 10^5$$

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

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

3) 3×10^4 is _____ \times the value of 8×10^5

$$\frac{3 \times 10^4}{8 \times 10^5} = \frac{3}{8} \times \frac{10^4}{10^5} = \frac{3}{8} \times 10^{-1} = 0.375 \times 10^{-1}$$

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

$$\frac{7 \times 10^8}{9 \times 10^4} = \frac{7}{9} \times \frac{10^8}{10^4} = \frac{7}{9} \times 10^4 = 0.778 \times 10^4$$

5) 2×10^4 is _____ \times the value of 3×10^9

$$\frac{2 \times 10^4}{3 \times 10^9} = \frac{2}{3} \times \frac{10^4}{10^9} = \frac{2}{3} \times 10^{-5} = 0.667 \times 10^{-5}$$

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

$$\frac{8 \times 10^7}{9 \times 10^3} = \frac{8}{9} \times \frac{10^7}{10^3} = \frac{8}{9} \times 10^4 = 0.889 \times 10^4$$

7) 9×10^4 is _____ \times the value of 3×10^5

$$\frac{9 \times 10^4}{3 \times 10^5} = \frac{9}{3} \times \frac{10^4}{10^5} = \frac{3}{1} \times 10^{-1} = 3 \times 10^{-1}$$

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

$$\frac{4 \times 10^8}{5 \times 10^5} = \frac{4}{5} \times \frac{10^8}{10^5} = \frac{4}{5} \times 10^3 = 0.8 \times 10^3$$

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

$$\frac{7 \times 10^2}{9 \times 10^5} = \frac{7}{9} \times \frac{10^2}{10^5} = \frac{7}{9} \times 10^{-3} = 0.778 \times 10^{-3}$$

Answers

1. **25,000**

2. **150**

3. **0.0375**

4. **7,780**

5. **0.00000667**

6. **8,890**

7. **0.3**

8. **800**

9. **0.000778**



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

Answers

1) 8×10^3 is _____ \times the value of 6×10^5

1. _____

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

2. _____

3) 5×10^8 is _____ \times the value of 7×10^5

3. _____

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

4. _____

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

5. _____

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

6. _____

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

7. _____

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

8. _____

9) 7×10^6 is _____ \times the value of 6×10^5

9. _____



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

1) 8×10^3 is _____ \times the value of 6×10^5

$$\frac{8 \times 10^3}{6 \times 10^5} = \frac{8}{6} \times \frac{10^3}{10^5} = \frac{4}{3} \times 10^{-2} = 1.333 \times 10^{-2}$$

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

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

3) 5×10^8 is _____ \times the value of 7×10^5

$$\frac{5 \times 10^8}{7 \times 10^5} = \frac{5}{7} \times \frac{10^8}{10^5} = \frac{5}{7} \times 10^3 = 0.714 \times 10^3$$

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

$$\frac{5 \times 10^9}{4 \times 10^2} = \frac{5}{4} \times \frac{10^9}{10^2} = \frac{5}{4} \times 10^7 = 1.25 \times 10^7$$

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

$$\frac{3 \times 10^2}{6 \times 10^9} = \frac{3}{6} \times \frac{10^2}{10^9} = \frac{1}{2} \times 10^{-7} = 0.5 \times 10^{-7}$$

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

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

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

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

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

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

9) 7×10^6 is _____ \times the value of 6×10^5

$$\frac{7 \times 10^6}{6 \times 10^5} = \frac{7}{6} \times \frac{10^6}{10^5} = \frac{7}{6} \times 10^1 = 1.167 \times 10^1$$

Answers

1. 0.01333

2. 0.003

3. 714

4. 12,500,000

5. 0.00000005

6. 571

7. 3,330

8. 0.3

9. 11.67



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

Answers

1) 5×10^4 is _____ \times the value of 8×10^3

1. _____

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

2. _____

3) 2×10^8 is _____ \times the value of 3×10^6

3. _____

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

4. _____

5) 9×10^4 is _____ \times the value of 6×10^6

5. _____

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

6. _____

7) 6×10^4 is _____ \times the value of 3×10^6

7. _____

8) 2×10^3 is _____ \times the value of 5×10^9

8. _____

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

9. _____



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

1) 5×10^4 is _____ \times the value of 8×10^3

$$\frac{5 \times 10^4}{8 \times 10^3} = \frac{5}{8} \times \frac{10^4}{10^3} = \frac{5}{8} \times 10^1 = 0.625 \times 10^1$$

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

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

3) 2×10^8 is _____ \times the value of 3×10^6

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

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

$$\frac{4 \times 10^4}{7 \times 10^9} = \frac{4}{7} \times \frac{10^4}{10^9} = \frac{4}{7} \times 10^{-5} = 0.571 \times 10^{-5}$$

5) 9×10^4 is _____ \times the value of 6×10^6

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

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

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

7) 6×10^4 is _____ \times the value of 3×10^6

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

8) 2×10^3 is _____ \times the value of 5×10^9

$$\frac{2 \times 10^3}{5 \times 10^9} = \frac{2}{5} \times \frac{10^3}{10^9} = \frac{2}{5} \times 10^{-6} = 0.4 \times 10^{-6}$$

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

$$\frac{9 \times 10^8}{8 \times 10^4} = \frac{9}{8} \times \frac{10^8}{10^4} = \frac{9}{8} \times 10^4 = 1.125 \times 10^4$$

Answers

1. 6.25

2. 0.008

3. 66.7

4. 0.00000571

5. 0.015

6. 18,000

7. 0.02

8. 0.0000004

9. 11,250



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

1) 7×10^5 is _____ \times the value of 3×10^6

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

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

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

5) 6×10^7 is _____ \times the value of 9×10^6

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

7) 5×10^9 is _____ \times the value of 8×10^6

8) 7×10^8 is _____ \times the value of 2×10^4

9) 5×10^7 is _____ \times the value of 3×10^8

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 7×10^5 is _____ \times the value of 3×10^6

$$\frac{7 \times 10^5}{3 \times 10^6} = \frac{7}{3} \times \frac{10^5}{10^6} = \frac{7}{3} \times 10^{-1} = 2.333 \times 10^{-1}$$

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

$$\frac{6 \times 10^2}{7 \times 10^3} = \frac{6}{7} \times \frac{10^2}{10^3} = \frac{6}{7} \times 10^{-1} = 0.857 \times 10^{-1}$$

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

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

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

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

5) 6×10^7 is _____ \times the value of 9×10^6

$$\frac{6 \times 10^7}{9 \times 10^6} = \frac{6}{9} \times \frac{10^7}{10^6} = \frac{2}{3} \times 10^1 = 0.667 \times 10^1$$

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

$$\frac{3 \times 10^3}{6 \times 10^5} = \frac{3}{6} \times \frac{10^3}{10^5} = \frac{1}{2} \times 10^{-2} = 0.5 \times 10^{-2}$$

7) 5×10^9 is _____ \times the value of 8×10^6

$$\frac{5 \times 10^9}{8 \times 10^6} = \frac{5}{8} \times \frac{10^9}{10^6} = \frac{5}{8} \times 10^3 = 0.625 \times 10^3$$

8) 7×10^8 is _____ \times the value of 2×10^4

$$\frac{7 \times 10^8}{2 \times 10^4} = \frac{7}{2} \times \frac{10^8}{10^4} = \frac{7}{2} \times 10^4 = 3.5 \times 10^4$$

9) 5×10^7 is _____ \times the value of 3×10^8

$$\frac{5 \times 10^7}{3 \times 10^8} = \frac{5}{3} \times \frac{10^7}{10^8} = \frac{5}{3} \times 10^{-1} = 1.667 \times 10^{-1}$$

Answers

1. **0.2333**

2. **0.0857**

3. **13,330**

4. **0.000225**

5. **6.67**

6. **0.005**

7. **625**

8. **35,000**

9. **0.1667**



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

1) 6×10^6 is _____ \times the value of 5×10^9

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

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

4) 8×10^8 is _____ \times the value of 7×10^3

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

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

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

8) 9×10^6 is _____ \times the value of 2×10^4

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 6×10^6 is _____ \times the value of 5×10^9

$$\frac{6 \times 10^6}{5 \times 10^9} = \frac{6}{5} \times \frac{10^6}{10^9} = \frac{6}{5} \times 10^{-3} = 1.2 \times 10^{-3}$$

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

$$\frac{7 \times 10^5}{9 \times 10^9} = \frac{7}{9} \times \frac{10^5}{10^9} = \frac{7}{9} \times 10^{-4} = 0.778 \times 10^{-4}$$

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

$$\frac{4 \times 10^3}{9 \times 10^6} = \frac{4}{9} \times \frac{10^3}{10^6} = \frac{4}{9} \times 10^{-3} = 0.444 \times 10^{-3}$$

4) 8×10^8 is _____ \times the value of 7×10^3

$$\frac{8 \times 10^8}{7 \times 10^3} = \frac{8}{7} \times \frac{10^8}{10^3} = \frac{8}{7} \times 10^5 = 1.143 \times 10^5$$

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

$$\frac{4 \times 10^9}{7 \times 10^8} = \frac{4}{7} \times \frac{10^9}{10^8} = \frac{4}{7} \times 10^1 = 0.571 \times 10^1$$

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

$$\frac{6 \times 10^2}{7 \times 10^4} = \frac{6}{7} \times \frac{10^2}{10^4} = \frac{6}{7} \times 10^{-2} = 0.857 \times 10^{-2}$$

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

$$\frac{5 \times 10^8}{7 \times 10^9} = \frac{5}{7} \times \frac{10^8}{10^9} = \frac{5}{7} \times 10^{-1} = 0.714 \times 10^{-1}$$

8) 9×10^6 is _____ \times the value of 2×10^4

$$\frac{9 \times 10^6}{2 \times 10^4} = \frac{9}{2} \times \frac{10^6}{10^4} = \frac{9}{2} \times 10^2 = 4.5 \times 10^2$$

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

$$\frac{8 \times 10^8}{4 \times 10^5} = \frac{8}{4} \times \frac{10^8}{10^5} = \frac{2}{1} \times 10^3 = 2 \times 10^3$$

Answers

1. **0.0012**

2. **0.0000778**

3. **0.000444**

4. **114,300**

5. **5.71**

6. **0.00857**

7. **0.0714**

8. **450**

9. **2,000**