



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**



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

1) 5×10^3 is _____ \times the value of 9×10^6

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

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

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

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

6) 9×10^4 is _____ \times the value of 7×10^8

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 5×10^3 is _____ \times the value of 9×10^6

$$\frac{5 \times 10^3}{9 \times 10^6} = \frac{5}{9} \times \frac{10^3}{10^6} = \frac{5}{9} \times 10^{-3} = 0.556 \times 10^{-3}$$

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

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

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

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

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

$$\frac{7 \times 10^9}{4 \times 10^2} = \frac{7}{4} \times \frac{10^9}{10^2} = \frac{7}{4} \times 10^7 = 1.75 \times 10^7$$

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

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

6) 9×10^4 is _____ \times the value of 7×10^8

$$\frac{9 \times 10^4}{7 \times 10^8} = \frac{9}{7} \times \frac{10^4}{10^8} = \frac{9}{7} \times 10^{-4} = 1.286 \times 10^{-4}$$

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

$$\frac{6 \times 10^9}{7 \times 10^7} = \frac{6}{7} \times \frac{10^9}{10^7} = \frac{6}{7} \times 10^2 = 0.857 \times 10^2$$

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

$$\frac{3 \times 10^9}{5 \times 10^2} = \frac{3}{5} \times \frac{10^9}{10^2} = \frac{3}{5} \times 10^7 = 0.6 \times 10^7$$

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. **0.000556**

2. **0.0333**

3. **0.05**

4. **17,500,000**

5. **5,710**

6. **0.0001286**

7. **85.7**

8. **6,000,000**

9. **2.5**



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

1) 6×10^2 is _____ \times the value of 2×10^9

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

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

4) 2×10^9 is _____ \times the value of 7×10^3

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

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

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 6×10^2 is _____ \times the value of 2×10^9

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

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

$$\frac{8 \times 10^7}{6 \times 10^2} = \frac{8}{6} \times \frac{10^7}{10^2} = \frac{4}{3} \times 10^5 = 1.333 \times 10^5$$

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

$$\frac{5 \times 10^7}{7 \times 10^4} = \frac{5}{7} \times \frac{10^7}{10^4} = \frac{5}{7} \times 10^3 = 0.714 \times 10^3$$

4) 2×10^9 is _____ \times the value of 7×10^3

$$\frac{2 \times 10^9}{7 \times 10^3} = \frac{2}{7} \times \frac{10^9}{10^3} = \frac{2}{7} \times 10^6 = 0.286 \times 10^6$$

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

$$\frac{8 \times 10^4}{7 \times 10^8} = \frac{8}{7} \times \frac{10^4}{10^8} = \frac{8}{7} \times 10^{-4} = 1.143 \times 10^{-4}$$

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

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

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

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

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

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

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

$$\frac{7 \times 10^7}{6 \times 10^5} = \frac{7}{6} \times \frac{10^7}{10^5} = \frac{7}{6} \times 10^2 = 1.167 \times 10^2$$

Answers

1. 0.0000

2. 133,300

3. 714

4. 286,000

5. 0.0001143

6. 333,000

7. 0.001143

8. 0.008

9. 116.7



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

1) 2×10^7 is _____ \times the value of 4×10^8

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

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

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

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

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

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

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

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

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 4×10^8

$$\frac{2 \times 10^7}{4 \times 10^8} = \frac{2}{4} \times \frac{10^7}{10^8} = \frac{1}{2} \times 10^{-1} = 0.5 \times 10^{-1}$$

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

$$\frac{4 \times 10^5}{9 \times 10^7} = \frac{4}{9} \times \frac{10^5}{10^7} = \frac{4}{9} \times 10^{-2} = 0.444 \times 10^{-2}$$

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

$$\frac{4 \times 10^5}{9 \times 10^4} = \frac{4}{9} \times \frac{10^5}{10^4} = \frac{4}{9} \times 10^1 = 0.444 \times 10^1$$

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

$$\frac{8 \times 10^5}{3 \times 10^4} = \frac{8}{3} \times \frac{10^5}{10^4} = \frac{8}{3} \times 10^1 = 2.667 \times 10^1$$

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

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

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

$$\frac{4 \times 10^5}{5 \times 10^9} = \frac{4}{5} \times \frac{10^5}{10^9} = \frac{4}{5} \times 10^{-4} = 0.8 \times 10^{-4}$$

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

$$\frac{2 \times 10^5}{9 \times 10^2} = \frac{2}{9} \times \frac{10^5}{10^2} = \frac{2}{9} \times 10^3 = 0.222 \times 10^3$$

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

$$\frac{8 \times 10^3}{3 \times 10^8} = \frac{8}{3} \times \frac{10^3}{10^8} = \frac{8}{3} \times 10^{-5} = 2.667 \times 10^{-5}$$

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

$$\frac{2 \times 10^9}{4 \times 10^3} = \frac{2}{4} \times \frac{10^9}{10^3} = \frac{1}{2} \times 10^6 = 0.5 \times 10^6$$

Answers

1. 0.05

2. 0.00444

3. 4.44

4. 26.67

5. 3,000

6. 0.00008

7. 222

8. 0.00002667

9. 500,000



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

1) 6×10^4 is _____ \times the value of 4×10^3

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

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

4) 7×10^5 is _____ \times the value of 9×10^6

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

6) 9×10^8 is _____ \times the value of 5×10^2

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 6×10^4 is _____ \times the value of 4×10^3

$$\frac{6 \times 10^4}{4 \times 10^3} = \frac{6}{4} \times \frac{10^4}{10^3} = \frac{3}{2} \times 10^1 = 1.5 \times 10^1$$

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

$$\frac{2 \times 10^6}{8 \times 10^3} = \frac{2}{8} \times \frac{10^6}{10^3} = \frac{1}{4} \times 10^3 = 0.25 \times 10^3$$

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

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

4) 7×10^5 is _____ \times the value of 9×10^6

$$\frac{7 \times 10^5}{9 \times 10^6} = \frac{7}{9} \times \frac{10^5}{10^6} = \frac{7}{9} \times 10^{-1} = 0.778 \times 10^{-1}$$

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

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

6) 9×10^8 is _____ \times the value of 5×10^2

$$\frac{9 \times 10^8}{5 \times 10^2} = \frac{9}{5} \times \frac{10^8}{10^2} = \frac{9}{5} \times 10^6 = 1.8 \times 10^6$$

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

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

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

$$\frac{5 \times 10^8}{6 \times 10^6} = \frac{5}{6} \times \frac{10^8}{10^6} = \frac{5}{6} \times 10^2 = 0.833 \times 10^2$$

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

$$\frac{5 \times 10^3}{3 \times 10^6} = \frac{5}{3} \times \frac{10^3}{10^6} = \frac{5}{3} \times 10^{-3} = 1.667 \times 10^{-3}$$

Answers

1. 15

2. 250

3. 0.0015

4. 0.0778

5. 40

6. 1,800,000

7. 200

8. 83.3

9. 0.001667



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

1) 6×10^6 is _____ \times the value of 9×10^2

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

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

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

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

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

7) 6×10^9 is _____ \times the value of 4×10^5

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

9) 3×10^8 is _____ \times the value of 6×10^4

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 9×10^2

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

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

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

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

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

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

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

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

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

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

$$\frac{3 \times 10^3}{4 \times 10^8} = \frac{3}{4} \times \frac{10^3}{10^8} = \frac{3}{4} \times 10^{-5} = 0.75 \times 10^{-5}$$

7) 6×10^9 is _____ \times the value of 4×10^5

$$\frac{6 \times 10^9}{4 \times 10^5} = \frac{6}{4} \times \frac{10^9}{10^5} = \frac{3}{2} \times 10^4 = 1.5 \times 10^4$$

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

$$\frac{6 \times 10^5}{4 \times 10^8} = \frac{6}{4} \times \frac{10^5}{10^8} = \frac{3}{2} \times 10^{-3} = 1.5 \times 10^{-3}$$

9) 3×10^8 is _____ \times the value of 6×10^4

$$\frac{3 \times 10^8}{6 \times 10^4} = \frac{3}{6} \times \frac{10^8}{10^4} = \frac{1}{2} \times 10^4 = 0.5 \times 10^4$$

Answers

1. 6,670

2. 750

3. 0.0015

4. 0.00000005

5. 0.00075

6. 0.0000075

7. 15,000

8. 0.0015

9. 5,000



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

1) 4×10^8 is _____ \times the value of 7×10^6

2) 8×10^3 is _____ \times the value of 7×10^4

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

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

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

6) 2×10^8 is _____ \times the value of 6×10^5

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 4×10^8 is _____ \times the value of 7×10^6

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

2) 8×10^3 is _____ \times the value of 7×10^4

$$\frac{8 \times 10^3}{7 \times 10^4} = \frac{8}{7} \times \frac{10^3}{10^4} = \frac{8}{7} \times 10^{-1} = 1.143 \times 10^{-1}$$

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

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

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

$$\frac{4 \times 10^4}{5 \times 10^9} = \frac{4}{5} \times \frac{10^4}{10^9} = \frac{4}{5} \times 10^{-5} = 0.8 \times 10^{-5}$$

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

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

6) 2×10^8 is _____ \times the value of 6×10^5

$$\frac{2 \times 10^8}{6 \times 10^5} = \frac{2}{6} \times \frac{10^8}{10^5} = \frac{1}{3} \times 10^3 = 0.333 \times 10^3$$

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

$$\frac{4 \times 10^7}{6 \times 10^6} = \frac{4}{6} \times \frac{10^7}{10^6} = \frac{2}{3} \times 10^1 = 0.667 \times 10^1$$

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

$$\frac{5 \times 10^7}{7 \times 10^9} = \frac{5}{7} \times \frac{10^7}{10^9} = \frac{5}{7} \times 10^{-2} = 0.714 \times 10^{-2}$$

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

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

Answers

1. 57.1

2. 0.1143

3. 180

4. 0.000008

5. 0.0714

6. 333

7. 6.67

8. 0.00714

9. 17,500



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

1) 4×10^9 is _____ \times the value of 5×10^6

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

3) 7×10^8 is _____ \times the value of 5×10^2

4) 7×10^2 is _____ \times the value of 3×10^6

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

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

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

1) 4×10^9 is _____ \times the value of 5×10^6

$$\frac{4 \times 10^9}{5 \times 10^6} = \frac{4}{5} \times \frac{10^9}{10^6} = \frac{4}{5} \times 10^3 = 0.8 \times 10^3$$

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

$$\frac{7 \times 10^8}{6 \times 10^2} = \frac{7}{6} \times \frac{10^8}{10^2} = \frac{7}{6} \times 10^6 = 1.167 \times 10^6$$

3) 7×10^8 is _____ \times the value of 5×10^2

$$\frac{7 \times 10^8}{5 \times 10^2} = \frac{7}{5} \times \frac{10^8}{10^2} = \frac{7}{5} \times 10^6 = 1.4 \times 10^6$$

4) 7×10^2 is _____ \times the value of 3×10^6

$$\frac{7 \times 10^2}{3 \times 10^6} = \frac{7}{3} \times \frac{10^2}{10^6} = \frac{7}{3} \times 10^{-4} = 2.333 \times 10^{-4}$$

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

$$\frac{3 \times 10^7}{4 \times 10^6} = \frac{3}{4} \times \frac{10^7}{10^6} = \frac{3}{4} \times 10^1 = 0.75 \times 10^1$$

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

$$\frac{5 \times 10^8}{3 \times 10^6} = \frac{5}{3} \times \frac{10^8}{10^6} = \frac{5}{3} \times 10^2 = 1.667 \times 10^2$$

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

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

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

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

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

$$\frac{2 \times 10^5}{5 \times 10^6} = \frac{2}{5} \times \frac{10^5}{10^6} = \frac{2}{5} \times 10^{-1} = 0.4 \times 10^{-1}$$

Answers

1. 800

2. 1,167,000

3. 1,400,000

4. 0.0002333

5. 7.5

6. 166.7

7. 5,000

8. 0.0004

9. 0.04



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

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

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

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

4) 2×10^7 is _____ \times the value of 4×10^3

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

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

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

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

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

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 4×10^8

$$\frac{3 \times 10^4}{4 \times 10^8} = \frac{3}{4} \times \frac{10^4}{10^8} = \frac{3}{4} \times 10^{-4} = 0.75 \times 10^{-4}$$

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

$$\frac{2 \times 10^9}{4 \times 10^5} = \frac{2}{4} \times \frac{10^9}{10^5} = \frac{1}{2} \times 10^4 = 0.5 \times 10^4$$

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

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

4) 2×10^7 is _____ \times the value of 4×10^3

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

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

$$\frac{4 \times 10^5}{5 \times 10^3} = \frac{4}{5} \times \frac{10^5}{10^3} = \frac{4}{5} \times 10^2 = 0.8 \times 10^2$$

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

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

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

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

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

$$\frac{4 \times 10^5}{5 \times 10^4} = \frac{4}{5} \times \frac{10^5}{10^4} = \frac{4}{5} \times 10^1 = 0.8 \times 10^1$$

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

$$\frac{8 \times 10^9}{7 \times 10^4} = \frac{8}{7} \times \frac{10^9}{10^4} = \frac{8}{7} \times 10^5 = 1.143 \times 10^5$$

Answers

1. 0.000075
2. 5,000
3. 0.3
4. 5,000
5. 80
6. 50
7. 2,667,000
8. 8
9. 114,300



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

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

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

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

4) 6×10^2 is _____ \times the value of 3×10^5

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

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

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

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

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



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

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

$$\frac{8 \times 10^2}{7 \times 10^8} = \frac{8}{7} \times \frac{10^2}{10^8} = \frac{8}{7} \times 10^{-6} = 1.143 \times 10^{-6}$$

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

$$\frac{3 \times 10^6}{4 \times 10^9} = \frac{3}{4} \times \frac{10^6}{10^9} = \frac{3}{4} \times 10^{-3} = 0.75 \times 10^{-3}$$

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

$$\frac{9 \times 10^7}{7 \times 10^8} = \frac{9}{7} \times \frac{10^7}{10^8} = \frac{9}{7} \times 10^{-1} = 1.286 \times 10^{-1}$$

4) 6×10^2 is _____ \times the value of 3×10^5

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

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

$$\frac{5 \times 10^6}{6 \times 10^5} = \frac{5}{6} \times \frac{10^6}{10^5} = \frac{5}{6} \times 10^1 = 0.833 \times 10^1$$

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

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

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

$$\frac{3 \times 10^3}{9 \times 10^7} = \frac{3}{9} \times \frac{10^3}{10^7} = \frac{1}{3} \times 10^{-4} = 0.333 \times 10^{-4}$$

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

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

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

$$\frac{9 \times 10^6}{7 \times 10^4} = \frac{9}{7} \times \frac{10^6}{10^4} = \frac{9}{7} \times 10^2 = 1.286 \times 10^2$$

Answers

1. 0.000001143
2. 0.00075
3. 0.1286
4. 0.002
5. 8.33
6. 13,330
7. 0.0000333
8. 66.7
9. 128.6