Finding Relative Value with Powers of Ten Name:

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

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

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

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

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

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

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

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

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

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

**Answers**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



| 1-9 | 89 | 78 | 67 | 56 | 44 | 33 | 22 | 11 | 0 |
|---|---|---|---|---|---|---|---|---|---|

Finding Relative Value with Powers of Ten Name: **Answer Key**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**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**



| 1-9 | 89 | 78 | 67 | 56 | 44 | 33 | 22 | 11 | 0 |
|---|---|---|---|---|---|---|---|---|---|