

Math Practice

1 Fractions

1. $\left(\frac{1}{10}\right) = 10$

2. $\left(\frac{1}{2}\right)^4 = \frac{1}{16}$

3. $\left(\frac{4}{8}\right)^4 = \frac{1}{16}$

4. $\left(\frac{1}{2}\right)^2 = \frac{1}{4}$

5. $\left(\frac{3}{9}\right)^2 = \frac{1}{9}$

6. $\left(\frac{6}{\frac{1}{2}}\right) = 12$

7. $\left(\frac{6000}{12000}\right)^4 = \frac{1}{16}$

2 Multiplication and Division

1. $(2 \times 10^2)(3 \times 10^4) = 6 \times 10^6$

2. $(3 \times 10^4)(3 \times 10^6) = 9 \times 10^{10}$

3. $(5 \times 10^2)(2 \times 10^3) = 1 \times 10^6$

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

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

3 Exponents

1. $(\sqrt{\frac{1}{10}})^2 = \frac{1}{10}$

2. $(2 \times 10^5)^2 = 4 \times 10^{10}$

3. $(3 \times 10^4)^2 = 9 \times 10^8$

4. $(5 \times 10^2)^2 = 2.5 \times 10^5$

5. $(4 \times 10^3)^2 = 1.6 \times 10^7$

6. $(2 \times 10^3)^3 = 8 \times 10^9$

4 Exponents and Multiplication

1. $\frac{1}{2}(2 \times 10^9)(2 \times 10^4)^2 = 4 \times 10^{17}$

2. $\frac{1}{2}(2 \times 10^9)(3 \times 10^2)^2 = 9 \times 10^{13}$

5 Solving equations

1. $\frac{2 \times 10^7}{X} = \left(\frac{6000}{12000}\right)^4$

$$X = 3.2 \times 10^8$$

2. $\frac{X}{10^{-6}} = \frac{3000}{1500}$

$$X = 2 \times 10^{-6}$$

3. $\frac{10^{-6}}{X} = \frac{3000}{1500}$

$$X = 5 \times 10^{-7}$$