

Equations with exponents – including decimal and fractional bases

Grade 6 Exponents Worksheet

Solve the following expressions.

1) $\left(\frac{1}{2}\right)^5 \times 4^2$

7) $0^3 \div \left(\frac{1}{12}\right)^6$

2) $0.1^2 \times 10^3$

8) $\left(\frac{9}{7}\right)^2 + \left(\frac{2}{7}\right)^3$

3) $\left(\frac{2}{5}\right)^3 \div 0.5^2$

9) $\left(\frac{5}{3}\right)^3 \times \left(\frac{3}{2}\right)^2$

4) $3^3 \times \left(\frac{2}{13}\right)^0$

10) $5^3 \times 0.5^3$

5) $9^2 + 1.2^1$

11) $\left(\frac{1}{4}\right)^2 - \left(\frac{1}{8}\right)^2$

6) $2.1^2 - 3^2$

12) $0.5^1 + 0.8^2$

Answers

1) $\frac{1}{2}$

7) 0

2) 10

8) $\frac{575}{343}$

3) 0.256

9) $\frac{125}{12}$

4) 27

10) 15.625

5) 82.2

11) $\frac{3}{64}$

6) -4.59

12) 1.14