

Solving Exponential Equations

Basic Process:

1. Get the bases the same on both sides of the equation.
2. Set the exponents equal to each other and solve.

Examples

a. $3^x = 27$

b. $6561 = 9^t$

c. $(-4)^m = 4096$

d. $(-5)^x = -125$

e. $4^{x+3} = 1024$

f. $5^{m-3} = 78125$

g. $3^{2k} = 81$

h. $2(4^{2x}) = 32$

i. $5^{3x+1} = 1$

j. $25^{2x} = 125^{x-1}$

k. $4^{3x} = 8^{4x-1}$

l. $9^x = 27^{x-1}$