

Steps for solving an equation when the variable that is raised to an exponent:

1. Get the parentheses with the power by itself

$$\text{EX. } 3(x + 1)^4 - 6 = 42$$

2. Do the inverse or root using the exponent as your index

**Remember if you take an even root, the answer must have \pm on it

3. Solve for the variable

Steps for solving an equation with a root:

1. Get the root by itself

$$\text{EX. } 2\sqrt[5]{x - 1} + 5 = 1$$

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Solve for a Specified Variable

Steps:

1. Distribute if it doesn't affect the variable you want to get alone
2. Do the inverse of the variables that are adding and/or subtracting the variable you want to get alone
3. Do the inverse of the variables that are multiplying and/or dividing the variable you want to get alone
4. Do the inverse of the variables that have roots and/or exponents to the variable you want to get alone
5. Repeat these steps if needed

EX. $2x + 6y = -10$ solve for x

EX. $A = s^2$ solve for s

EX. $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ Solve for y_2

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