Simplifying Square Roots: A perfect square is a number that is made by taking another number times itself.

Ex. 16 is a perfect square, because

12 is not a perfect square, so we need to do the prime factorization in order to find a perfect square to square root.

\*If you see two of the same number in the prime factorization, place that number outside the square root. Anything left inside the square root gets multiplied. If more than one number gets moved to the outside, they also get multiplied.\*

You try:

Square root with exponents: Recall, that exponents follow different rules (in a multiplication problem, you add your exponents). Instead of doing the square root, then, you would divide it in half.

Ex. , so

is not a perfect square (you can’t take ½ of it), so you need to break it down

You try:

\*Cube roots: When doing the prime factorization, look for 3 of the same number. For exponents, divide by 3\*

Ex. Nothing is left inside!

You try:

Solve with Radicals (square roots): Get the radical sign on a side by itself. Square both sides to get rid of the square root. Solve for x. Note: If both sides have radical signs, they will both disappear when you square both sides. If you end up with an , you will need to move all terms to one side and factor in order to solve for x.

Ex.

You try:

Distance formula: Find the distance between two points (ordered pairs) on a graph.

Given point 1 and point 2 Distance =

Ex. Find the distance between

Find the distance between

Don’t forget to reduce, if possible.

You try: Find the distance between

Find the distance between