

ex 1. Look for a factor that is a perfect square and rewrite.

ex 2. Do the same as example 1, only multiply your "outside" numbers (coefficients) together.

ex 3. You can ONLY add or subtract LIKE radicals, therefore, simplify all radicals first

ex 4. You can multiply ANY monomials together if they are under a LIKE root (i.e. two square roots, two cube roots, etc).

ex 5. Double Distribute (FOIL). Then simplify and put together LIKE terms when possible.

ex 6. When you have fraction, you may reduce the radicands under the LIKE roots. Then finish the problem; always looking for perfect square number (or perfect cubes if under a cube root, etc)

ex 7. NEVER NEVER NEVER NEVER NEVER leave a radical in the denominator of a fraction. If you can simplify (see ex 6) then do. This is what to do when the denominator is not a perfect square. It's called "rationalizing the denominator".

ex 8. When dividing by a binomial, multiply by the conjugate of the denominator to "rationalize the denominator". (what is a conjugate? Changing the add/subtract in a binomial to create another binomial with the opposite operation).

