

Video 1.2.3A Transcript - Rationalize the Denominator

This video presentation is to demonstrate how to rationalize the denominator. To rationalize a denominator means we will mathematically remove this radical from the denominator. In this example, two over square root of three, there's a square root in the denominator. So, to remove the square root we will multiply another square root of three over square root of three, because square root of three over square root of three is equivalent to one. So, mathematically speaking, this technique is actually allowed. So, now my denominator is square root of nine, which we know is equal to just three. So, now that radical over the square root is actually removed. If we come back to the top, two times square root of three is still two, square root of three. So, our insert is simply two, square root of three over three.

Another example may be if I have one over square root of two. So, to remove the square root in the denominator, we will simply multiply another square root of two over square root of two. Again, this is the equivalent to one. So now the denominator, square root of two times square root of two, is square root of four which we know is simply equal to two. Now the denominator is two. The numerator, one times square root of two, is simply square root of two. One thing to remember is the number inside the square root cannot be reduced with the numbers on the outside of the square root, so this is our answer and that will complete this video.