

Math 103 Test 3 Khan Academy Videos

Rational Equations

1. Simple Equation: <https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions/solving-rational-equations/v/equations-with-two-rational-expressions>
2. Equation Involving Subtraction: <https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions/solving-rational-equations/v/equations-with-two-rational-expressions-2>
3. Work Rate: <https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions/modeling-with-rational-functions/v/applying-rational-equations-1>

Variation Equations

4. Solving: <https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions/direct-and-inverse-variation/v/direct-and-inverse-variation>
5. Application: <https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions/direct-and-inverse-variation/v/inverse-variation-application>

Root Expressions

6. Numeral Square Root: <https://www.khanacademy.org/math/algebra/rational-exponents-and-radicals/alg1-simplify-square-roots/v/simplifying-square-roots-1>
7. Variable in Square Root: <https://www.khanacademy.org/math/algebra/rational-exponents-and-radicals/alg1-simplify-square-roots/v/simplifying-square-roots-comment-response>
8. Products of Roots: <https://www.khanacademy.org/math/algebra/rational-exponents-and-radicals/alg1-simplify-square-roots/v/simplifying-square-root-expressions>
9. Higher Order Roots: <https://www.khanacademy.org/math/algebra/rational-exponents-and-radicals/alg1-simplify-higher-index-roots/v/radical-expressions-with-higher-roots>
10. Variables in Cube Root: <https://www.khanacademy.org/math/algebra/rational-exponents-and-radicals/alg1-simplify-higher-index-roots/v/rational-exponents-and-exponent-laws>
11. Variables in Cube Root: <https://www.khanacademy.org/math/algebra-home/alg-exp-and-log/miscellaneous-radicals/v/simplifying-cube-roots>
12. Adding Radicals: <https://www.khanacademy.org/math/algebra-home/alg-exp-and-log/miscellaneous-radicals/v/adding-and-simplifying-radicals>
13. Dividing Using Conjugates: <https://www.khanacademy.org/math/algebra-home/alg-exp-and-log/miscellaneous-radicals/v/how-to-rationalize-a-denominator>

Root Equations

14. Simple Square Root: <https://www.khanacademy.org/math/algebra2/radical-equations-and-functions/solving-square-root-equations/v/solving-radical-equations-3>
15. Two Solutions: <https://www.khanacademy.org/math/algebra2/radical-equations-and-functions/solving-square-root-equations/v/solving-square-root-equations-w-two-solutions>
16. No Solution: <https://www.khanacademy.org/math/algebra2/radical-equations-and-functions/solving-square-root-equations/v/solving-square-root-equations-w-no-solution>
17. Extraneous Solution: <https://www.khanacademy.org/math/algebra2/radical-equations-and-functions/analyzing-extraneous-solutions-of-square-root-equations/v/extraneous-solutions-of-radical-equations>
18. Cube Root: <https://www.khanacademy.org/math/algebra2/radical-equations-and-functions/solve-cube-root-equations/v/solving-radical-equations-2>

Complex Numbers

19. I and Powers of i: <https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/the-imaginary-numbers-algebra-2/v/introduction-to-i-and-imaginary-numbers>
20. Higher powers of i: <https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/the-imaginary-numbers-algebra-2/v/calculating-i-raised-to-arbitrary-exponents>
21. Simplifying Roots of negative numbers:
<https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/the-imaginary-numbers-algebra-2/v/imaginary-roots-of-negative-numbers>
22. Complex Numbers: <https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/the-complex-numbers-algebra-2/v/complex-number-intro>
23. Subtracting Complex Numbers: <https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/adding-and-subtracting-complex-numbers-algebra-2/v/subtracting-complex-numbers>
24. Multiplying Complex Numbers <https://www.khanacademy.org/math/algebra2/introduction-to-complex-numbers-algebra-2/multiplying-complex-numbers-algebra-2/v/multiplying-complex-numbers>

Quadratic Equations

25. By Factoring: <https://www.khanacademy.org/math/algebra/quadratics/solving-quadratic-equations-by-factoring/v/solving-quadratics-by-dividing-and-factoring>

26. By Square Root: <https://www.khanacademy.org/math/algebra/quadratics/quadratics-square-root/v/simple-quadratic-equation>
27. By Square Root: <https://www.khanacademy.org/math/algebra/quadratics/quadratics-square-root/v/solving-quadratics-by-taking-square-roots>
28. Completing the Square: <https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-by-completing-the-square/v/solving-quadratic-equations-by-completing-the-square>
29. Completing the Square: <https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-by-completing-the-square/v/completing-the-square-to-solve-quadratic-equations>
30. Quadratic Formula: <https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/quadratic-formula-2>
31. Discriminant: <https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/quadratic-formula-3>