



Basic Algebra – Unit 5: Solving Algebraic Equations

Study Guide

Text: Introductory Technical Mathematics, 6th Edition, Chapters 13 and 14

Note: Do “Odd” numbered problems only

1. Review course structure.
2. Read pages 331 to 332: Definitions.
3. Complete problems on Solving One Step Equations found at:
<https://www.khanacademy.org/math/algebra-basics/core-algebra-linear-equations-inequalities/core-algebra-solving-basic-equations/v/solving-one-step-equations>
4. Watch YouTube video, “Solve Equations by Addition,” found at:
https://www.youtube.com/watch?v=3JYDTm02xic&index=61&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w
5. Watch YouTube video “Solve Equations by Subtractions,” found at:
https://www.youtube.com/watch?v=y_F7BIQT-eg&index=60&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w
6. Watch YouTube video “Solve Equations by Subtraction or Addition,” found at:
https://www.youtube.com/watch?v=Xm1xF4lbf3k&index=62&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w
7. Watch YouTube video “Solve Equations by Multiplication,” found at:
https://www.youtube.com/watch?v=r1xqebeZgew&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w&index=64
8. Watch YouTube video, “Solve Equations by Division,” found at:
https://www.youtube.com/watch?v=LpeSB1gu_Hc&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w&index=63
9. Watch YouTube video, “Solve Equations by Multiplication or Division,” found at:
https://www.youtube.com/watch?v=xBWaSbEMehY&list=PLgtmo2gg-C6vZK_WFsYI1GEkl-zY0bJ8w&index=65
10. Read pages 332 to 342, Units: 13.2-13.5, Addition, Subtraction, Multiplication and Division





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11. Complete problems on solving Multiple Step Equations found at:
<https://www.khanacademy.org/math/algebra-basics/core-algebra-linear-equations-inequalities/core-algebra-solving-basic-equations/v/solving-equations-1>
12. Complete Problems on Quadratic Equations found at:
<https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/using-the-quadratic-formula>
13. Do Exercises 13.2 (page 333) # 1-15 and # 25-35 for practice.
14. Do Exercises 13.3 (pages 335-336) # 1-15, # 25-35 and # 39 for practice.
15. Do Exercises 13.4 (page 339) # 1-15, # 25-35 and # 45 for practice.
16. Do Exercises 13.5 (pages 342-343) # 1-15, # 25-35 and # 41-43 for practice.
17. Read pages 344-349, Units: 13.6-13.7, Powers and Roots.
18. Complete problems on Equations Using Fractional Exponents found at:
<https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/using-the-quadratic-formula>
19. Do Exercises 13.6 (pages 345-346) # 1-15, # 25-35 and # 37-39 for practice.
20. Do Exercises 13.7 (pages 335-336) # 1-15, # 25-35 and # 39 for practice.
21. Read page 350, Unit: 13.8, Removal of Parentheses.
22. Do Exercises 13.8 (page 349) # 1-15 for practice.
23. Read page 351, Unit: 13.9, Combined Operations.
24. Do Exercises 13.9 (page 352) # 1-19 for practice.
25. Read pages 352-355, Unit: 13.10, Binary Numbering System.





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26. Solve problems on Two Equations in Two Unknowns found at:
<https://www.khanacademy.org/math/algebra-basics/core-algebra-expressions/core-algebra-variables-and-expressions/v/expressions-with-two-variables>
27. Solve problems on Two Equations by Graphing found at:
<https://www.khanacademy.org/math/algebra-basics/core-algebra-systems/core-algebra-systems-tutorial/v/solving-linear-systems-by-graphing>
28. Do Exercises 13.10 (page 355) # 1-19 and # 31-49 for practice.
29. Complete Unit Lab/Test in lab. See lab instructor.





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