

ALGEBRA II - TECHNIQUES

Study Plan

Section 1 Linear and quadratic inequalities

Background

Right at the beginning of the chapter, a question is asked about the difference between an equation and an inequality. It is important that you understand the distinction as it will have an impact in other areas, especially in Applied Mathematics. The techniques used to solve inequalities is the same as those used to solve equations but there are some traps you can fall into. As usual, when working through the exercises check your answers in the textbook. If you are in difficulty then you can refer to the other resources on the website.

Look at the examples on pages 32 to 35. Example 2.2 and the question posed beneath it demonstrates one of the 'traps' mentioned above – division or multiplication by a negative number. Example 2.4 gives two different methods of solving quadratic inequalities, one graphical and the other analytical. Before you start using the graphical method, practise sketching quadratics by inspection of the equation only.



Exercise 2A and exercise 2B

Try all of these two exercises. With **Exercise 2B**, try both analytical and graphical methods using one to check the other.