

Algebra II Semester 2 Skills Checklist

1. Evaluate functions	
2. Analyze the domain and range of functions	
3. Model relationships with functions	
4. Identify arithmetic and geometric sequences	
5. Recognize exponential growth from situations, graphs, or equations	
6. Understand multiple representations of exponential functions	
7. Using basic laws of exponents to simplify expressions	
8. Use exponential functions to solve problems involving growth or decay	
9. Find equations of exponential functions through two given points	
10. Identify graphs of $ x $, \sqrt{x} , b^x , $\frac{1}{x}$, x , x^2 , and x^3	
11. Transform a graph by stretching, shifting, or flipping it	
12. Use the "completing the square" technique	
13. Write equations in graphing form	
14. Invert functions analytically and graphically	
15. Form compositions of functions	

16. Understand logarithms and transform their graphs	
17. Use properties of logarithms to simplify expressions	
18. Use logarithms to solve exponential equations	
19. Count possibilities in situations that require a particular order	
20. Count possibilities in situations in which order does not matter	
21. Draw a tree diagram to represent and calculate probabilities	
22. Draw an area diagram to represent and calculate probabilities	
23. Calculate expected value	
24. Use the fundamental principle of counting	
25. Calculate conditional probabilities	
26. Find the value of arithmetic series of arbitrary length	
27. Find the value of geometric series of arbitrary length	
28. Express a series with summation notation	
29. Use mathematical induction	

To pass, you must have at least a 3/5 in every single skill. You must also earn an average of 75% (3.75/5) across your skills (worth 80%) and your final exam (worth 20%).

To earn honors, you must have at least a 4/5 in every single skill, earn 80% on the final exam, and complete three honors assignments.