

**MAT 1375 – Precalculus**

**Text:** ``Precalculus'' Thomas Tradler and Holly Carley, Second Edition, available on [www.lulu.com](http://www.lulu.com)  
PDF available from: <http://websupport1.citytech.cuny.edu/faculty/ttradler/precalculus.html>

<b>Topic</b>	<b>Homework</b>
1. The absolute value	Exercises 1.1, 1.2, 1.3 (a)-(e), 1.4 (a)-(f), 1.6, 1.7 (a)-(f)
2. Lines and functions	Exercises 2.1 (a)-(c), 2.3 (a)-(c), 2.5-2.8 all
3. Functions by formulas and graphs	Exercises 3.1 (a)-(b), 3.2, 3.4 (a)-(f), 3.6 (a)-(f), 3.7 (a)-(g) and (m)-(t), 3.8, 3.9
4. Introduction to the TI-84	Exercise 4.1, 4.2 (a), 4.3 (c)-(i), 4.6
5. Basic functions and transformations	Exercise 5.1, 5.2 (a)-(f), 5.3 (a)-(d), 5.5 (a)-(e)
6. Operations on functions	Exercise 6.1 (a)-(c), 6.2 (a)-(b), 6.3 (a)-(d), 6.4 (a)-(c), 6.5 (a)-(b), 6.6, 6.7
7. The inverse of a function	Exercise 7.1 (a)-(c), 7.2 (a)-(f) and (l)-(p), 7.3 (a)-(c), 7.4 (a)-(c), 7.5 (a) and (d)
8. Dividing polynomials (8.3 Synthetic division <i>is optional</i> )	Exercise 8.1 (a)-(c) and (j)-(k), 8.2, 8.3, 8.4 (a)-(d) ( <i>Optional</i> : 8.5 (a)-(d))
9. Graphing polynomials (9.3 Graphing polynomials by hand <i>is optional</i> )	Exercise 9.1-9.3 all, 9.4 (a)-(c), 9.5 (a)-(c) ( <i>Optional</i> : 9.6)
10. Roots of polynomials (10.1 Rational root theorem <i>is optional</i> )	Exercise 10.2 (a)-(d), 10.3 (a)-(c), 10.4 (a)-(c) and (f)-(h), 10.5 (a)-(c) and (f)-(i) ( <i>Optional</i> : 10.1)
11. Rational functions (11.2 Graphing rational functions by hand <i>is optional</i> )	Exercise 11.1-11.4 all
12. Polynomial and rational inequalities	Exercise 12.1 (a)-(c), 12.2 (g)-(j), 12.4 (a)-(f), 12.5
13. Exponential and logarithmic functions	Exercise 13.1 (a)-(f), 13.2 (a)-(e), 13.4, 13.5 (a)-(b), 13.6 (a)-(h)
14. Properties of exp and log	Exercise 14.1 (a)-(e), 14.2 (a)-(f), 14.3 (a)-(c) and (e), 14.4 (e)-(g), 14.5 (a)-(e)
15. Applications of exp and log	Exercise 15.1 (a)-(b), 15.3-15.8 all
16. Half-life and compound interest	Exercise 16.1-16.7 all, 16.9 (a)-(c), 16.10 (a)-(e)

17. Trigonometric functions	Exercise 17.1 (a)-(d) and (g)-(h), 17.3, 17.4, 17.5 (a)-(d), 17.6 (a)-(g)
18. Addition of angles and multiple angle formulas	Exercise 18.1 (a)-(e), 18.2 (a)-(b), 18.3 (a)-(d), 18.4 (a)-(d)
19. Inverse trigonometric functions	Exercise 19.1, 19.2 (a)-(j), 19.3 (a)-(c) and (g)-(i)
20. Trigonometric equations	Exercise 20.1 (a)-(d), 20.2 (a)-(b), 20.4 (a)-(k), 20.5 (a)
21. Complex numbers	Exercise 21.1 (a)-(c), 21.2 (b)-(e), 21.3 (a)-(c), 21.4 (a)-(d), 21.5 (c)-(d), 21.6 (a)-(d), 21.7 (a)-(d)
22. Vectors in the plane	Exercise 22.1 (a) and (d), 22.2 (a)-(d), 22.3 (b)-(f) and (k)-(m), 22.4 (a)-(b)
23. Sequences and series	Exercise 23.1 (a)-(c), 23.3 (a)-(d), 23.4 (a)-(d), 23.5 (a)-(b), 23.7 (a)-(b) and (e)-(i)
24. The geometric series	Exercise 24.1 (a)-(d), 24.2 (a)-(c), 24.3 (a)-(b) and (e)-(i), 24.4 (c) and (f)-(i), 24.5 (a)
25. The binomial theorem	Exercise 25.1 (a) and (i)-(l), 25.2 (b), 25.3 (a)-(d), 25.4 (a)-(d), 25.5 (a)-(d), 25.6 (a)-(d)