**MAT 1375 – Precalculus** **Text**: ``*Precalculus*'' Thomas Tradler and Holly Carley, Second Edition, available on www.lulu.com
PDF available from: http://websupport1.citytech.cuny.edu/faculty/ttradler/precalculus.html

| Topic | Homework |
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| 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<br>(8.3 Synthetic division *is optional*) | Exercise 8.1 (a)-(c) and (j)-(k), 8.2, 8.3, 8.4 (a)-(d)<br>(*Optional*: 8.5 (a)-(d)) |
| 9. Graphing polynomials<br>(9.3 Graphing polynomials by hand *is optional*) | Exercise 9.1-9.3 all, 9.4 (a)-(c), 9.5 (a)-(c)<br>(*Optional*: 9.6) |
| 10. Roots of polynomials<br>(10.1 Rational root theorem *is optional*) | Exercise 10.2 (a)-(d), 10.3 (a)-(c), 10.4 (a)-(c) and (f)-(h), 10.5 (a)-(c) and (f)-(i)<br>(*Optional*: 10.1) |
| 11. Rational functions<br>(11.2 Graphing rational functions by hand *is optional*) | 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) |

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| 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) |