The following sections from the text are to be covered. Submitted work for homework, quizzes, worksheets, tests, and the final exam must show <u>all</u> work. Only writing the answer of each problem is <u>not</u> enough.

Precalculus Fall 2025
Instructors will assign exercises from Technology Highlights throughout the semester.

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|---|---------|------|--|--|
| Week  | Section | Page | Suggested Practice Problems  |  |
| 1   | 3.7     | 311  | Polynomial and Rational Inequalities                               |  |
|   |         |      | 17, 28, 33, 35, 41, 49, 54, 61, 67, 70, 88, 89, 97                 |  |
| 1 & 2   | 4.1     | 350  | One-to-One and Inverse Functions                                   |  |
|   |         |      | 8, 10, 21, 22, 44, 47, 48, 52, 53, 62, 71, 74, 77, 80, 84, 87, 102 |  |
| 2   | 4.2     | 362  | Exponential Functions  |  |
|   |         |      | 10, 11, 24, 25, 35, 38, 43, 46, 49, 52, 56, 59, 64, 70, 71, 75, 77 |  |
| 3   | 4.3     | 375  | Logarithms and Logarithmic Functions                               |  |
|   |         |      | 11, 12, 17, 22, 29, 34, 35, 41, 46, 47, 50, 55, 58, 61, 64, 67,    |  |
|   |         |      | 73, 76, 78, 84, 91   |  |
| 3   | 4.4     | 392  | Properties of Logarithms; Solving Exponential/Logarithmic          |  |
|   |         |      | Equations  |  |
|   |         |      | 9, 12, 15, 18, 21, 24, 36, 37, 41, 45, 50, 53, 59, 65, 66, 75, 77, |  |
|   |         |      | 83, 85, 91, 93, 94, 103, 106, 109, 110, 111, 117, 119, 127, 132    |  |
| 4   | 5.1     | 435  | Angle Measure, Special Triangles, and Special Angles               |  |
|   |         |      | 7, 27, 30, 33, 36, 40, 41, 44, 46, 48, 51, 53, 56, 61, 64, 67, 70, |  |
|   |         |      | 73, 79, 82, 87, 90, 95, 98, 99, 100, 102, 105, 107                 |  |
| 4 & 5   | 5.2     | 449  | Unit Circles and the Trigonometry of Real Numbers                  |  |
|   |         |      | 9, 12, 13, 14, 21, 22, 27, 28, 31, 34, 37, 38, 39, 40, 41, 43, 44, |  |
|   |         |      | 47, 50, 54, 55, 71, 73, 76, 78, 79, 84, 87, 90, 93, 98, 99, 101    |  |
| 5   | 5.3     | 466  | Graphs of the Sine and Cosine Functions; Cosecant and              |  |
|   |         |      | Secant Functions   |  |
|   |         |      | 11, 14, 15, 18, 28, 29, 33, 36, 45, 46, 47, 48, 49, 50, 53, 54,    |  |
|   |         |      | 57, 61, 64, 69   |  |
| 5 & 6   | 5.4     | 479  | Graphs of Tangent and Cotangent Functions                          |  |
|   |         |      | 11, 12, 13, 14, 17, 20, 21, 24, 25, 28, 33, 35, 39, 40, 42, 43,    |  |
|   |         |      | 45, 50, 54   |  |
| 6   | 5.5     | 494  | Transformations and Applications of Trigonometric Graphs           |  |
|   |         |      | 15, 16, 17, 18, 25, 28, 30, 33, 37, 38, 43, 47, 48                 |  |
| 6 & 7   | 5.6     | 506  | The Trigonometry of Right Triangles                                |  |
|   |         |      | 9, 10, 13, 16, 17, 20, 23, 26, 27, 30, 31, 34, 35, 42, 49, 54, 71, |  |
|   |         |      | 72, 75, 78, 79   |  |
| 7   | 5.7     | 519  | Trigonometry and the Coordinate Plane                              |  |
|   |         |      | 7, 9, 12, 14, 15, 18, 23, 33, 36, 38, 43, 44, 45, 46, 51, 54, 55,  |  |
|   |         |      | 56, 59, 61, 63, 70, 72, 75, 80, 84, 85, 108                        |  |
| 7 & 8   | 6.1     | 549  | Fundamental Identities and Families of Identities                  |  |
|   |         |      | 15, 18, 21, 24, 27, 30, 33, 36, 39, 41, 44, 47, 50, 53, 56, 59,    |  |
|   |         |      | 65, 68, 69, 72   |  |

| 8     | 6.2          | 555     | Constructing and Verifying Identities                              |
|-------|--------------|---------|--|
| 0.00  | ( )          | 5.62    | 14, 17, 20, 23, 26, 29, 34, 37, 40, 45, 48, 52, 55, 58             |
| 8 & 9 | 6.3          | 563     | The Sum and Difference Identities                                  |
|       |              |         | 7, 10, 12, 13, 16, 17, 20, 21, 22, 25, 26, 27, 28, 30, 31, 33, 36, |
|       |              |         | 39, 42, 45, 48, 49, 52, 57, 60, 65, 66, 76                         |
| 9 &   | 6.4          | 576     | The Double-Angle, Half-Angle, and Product-to-Sum                   |
| 10    |              |         | Identities   |
|       |              |         | 7, 12, 14, 15, 17, 20, 23, 24, 28, 30, 32, 35, 37, 40, 45, 48, 49, |
|       |              |         | 52, 54, 56, 59, 60, 65, 66, 67, 73, 76, 77, 80, 82, 83, 89, 92, 97 |
| 10    | 6.5          | 593     | The Inverse Trig Functions and Their Applications                  |
|       |              |         | 7, 10, 15, 17, 21, 22, 26, 28, 34, 40, 41, 44, 45, 48, 52, 53, 54, |
|       |              |         | 57, 62, 63, 66, 67, 69, 70, 72, 75, 91, 93                         |
| 10    | 5.6          | 507     | The Trigonometry of Right Triangles (Applications)                 |
|       |              |         | 43, 44   |
| 11    | 6.6          | 606     | Solving Basic Trig Equations                                       |
|       |              |         | 7, 13, 16, 17, 20, 24, 26, 31, 32, 39, 42, 44, 45, 46, 47, 58, 59, |
|       |              |         | 62, 66, 71, 72, 76, 77, 81, 82, 84, 87, 93, 99                     |
| 11 &  | 6.7          | 615     | General Trig Equations and Applications                            |
| 12    |              |         | 7, 12, 13, 16, 17, 22, 23, 27, 29, 34, 37, 40, 45, 53              |
| 12    | 7.1          | 641     | Oblique Triangles and the Law of Sines                             |
|       |              |         | 8, 11, 15, 20, 25, 27, 30, 33, 36, 40, 43, 47, 50, 51, 64, 65, 69  |
| 13    | 7.2          | 653     | The Law of Cosines; the Area of a Triangle                         |
|       | , . <u>_</u> |         | 7, 10, 11, 15, 18, 21, 27, 37, 40, 41, 48, 49                      |
| 13 &  | 8.1          | 727     | Linear Systems in Two Variables with Applications                  |
| 14    | 0.1          | '-'     | 15, 25, 30, 37, 45, 48, 66   |
| 13 &  | 8.2          | 740     | Linear Systems in Three Variables with Applications                |
| 14    | 0.2          | ' ' ' ' | 11, 15, 20, 25, 33, 39, 54, 61                                     |
| 13 &  | 8.5          | 776     | Solving Linear Systems Using Matrices and Row Operations           |
| 14    | 0.5          | ''      | 11, 14, 15, 16, 33, 38, 39, 41, 43, 53, 54                         |
| 13    | 8.7D         | 801     | Solving Linear Systems Using Matrix Operations                     |
|       | 0.7D         | 001     | 45, 48, 49, 52   |
| 13    | 8.8A         | 811     | Applications of Matrices and Determinants: Cramer's Rule,          |
|       |              |         | Geometry, and More   |
|       |              |         | 9, 12, 17  |
| 14    | 10.1         | 946     | Sequences and Series   |
| '     | 10,1         |         | 11, 16, 27, 30, 35, 41, 46, 53, 59, 62, 71, 75, 81, 87             |
| 14    | 10.2         | 953     | Arithmetic Sequences   |
| 1 7   | 10.2         |         | 9, 15, 25, 34, 42, 43, 48, 51, 57, 63, 71                          |
| 15    | 10.3         | 962     | Geometric Sequences  |
| 13    | 10.5         | 102     | 8, 9, 11, 20, 33, 39, 47, 53, 59, 65, 71, 77, 89, 92, 99, 101,     |
|       |              |         | 110, 113   |
| 15    | 10.7         | 1005    | The Binomial Theorem   |
| 13    | 10./         | 1003    |  |
|       |              |         | 15, 17, 20, 25, 28, 31, 35, 36                                     |