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| **Unit 5 (Vectors)** | **Precalculus** |

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| Main Topic/Book Section | Objectives | Assignments |
| 6.3 Vectors in the Plane | * Write vectors in component form given two points.
* Calculate magnitude of a vector.
* Add and subtract vectors
* Find unit vectors in the direction of any given vector.
* Perform scalar multiplication on vectors.
* Write a given vector as a linear combination of standard unit vectors.
* Determine the direction angle of a vector.
* Solve application problems involving vectors (e.g. determining weight, velocity vectors, static equilibrium, resultant force, etc.)
 | 1) p. 456-457 #’s 2-14 (even), 15-202) p. 457 #’s 22-46 (even)3) p. 457 #’s 53-56, 59, 60, 66, 674) p. 457-458 #’s 71 (need a hint for this one), 73, 74, 77, 78, 79, 80 |
| **QUIZ** |  |  |
| 6.4 Vectors and Dot Product | * Find the dot product of two vectors
* Determine the angle between two nonzero vectors
* Determine whether two vectors are orthogonal, parallel, or neither
* Decompose a vector into vector components
* Solve application problems involving projections
 | 5) p. 467 #’s 3-6, 11-16, 19-226) p. 467-468 #’s 26-52 (even)7) p. 468 #’s 53-628) p. 458 #’s 67-68 |
|  |  | Additional problems |
| **TEST** |