

Review For Test 1

For each section below review class examples, homework and quizzes. Use examples in the book to supplement class notes.

1. **Sections 11.1 and 11.2.** Vectors in the plane and in space. Operations on vectors, magnitude of a vector, distance between two points. Spheres. Review problems: 67, 71 on p. 756; 3, 5, 13, 19, 25, 27, 37, 41, 49, 51, 61, 69, 85 on pp. 763-764.
2. **Section 11.3.** Dot product of two vectors and its properties, angle between two vectors, direction cosines, projection of one vector onto the direction of another. Work. Review problems: 7, 13, 17, 27, 29, 35, 39, 55, 59, 61 on pp. 773-774.
3. **Section 11.4.** Cross product and its geometric interpretation, properties of cross product. Triple scalar product and its geometric interpretation. Review problems: 13, 17, 23, 25, 27, 35, 39 on pp. 781-782.
4. **Section 11.5.** Parametric equation of the line, equation of the plane. Distance between a point and a plane, angle between two planes, distance between a point and a line. Review problems: 7, 9, 13, 15, 17, 21, 25, 29, 31, 39, 43, 45, 47, 51, 57, 61, 65, 67, 73, 75, 77, 83 on pp. 790-792.
5. **Section 11.6.** Planes, cylinders. Surfaces of revolution. Quadratic surfaces. Review problems: 1, 3, 5, 9, 11, 13, 15, 19, 21, 23, 31, 33, 35 on pp. 802-803.

Good luck!