

The main topics we covered in Chapter 9 were

(1) Vectors: picture, length & direction, component form,  $\mathbf{i}, \mathbf{j}$ , operations (addition, scalar mult., dot product), unit vectors, tangents & normals, angle between vectors, orthogonal (=perpendicular) vectors, projection, vector functions & calculus, position vector, velocity vector, acceleration vector, curves given in vector form

(2) Polar co-ordinates: definition, picture, graphing in polar co-ordinates, switching between polar & Cartesian co-ordinates, intersecting polar curves, the area inside a polar curve or between two polar curves

The following is a **trimmed** version of the homework I originally gave for Chapter 9. If you just want to see which problems I cut, look at the second list below.

§9.1, p. 726 # 5, 6, 7, 9, 11, 12, 14, 15, 17*ab*, 18*bc*, 19, 22, 24, 26, 27, 29,  
30, 35, 36, 39, 40, 41, 43, 44, 46, 47, 49, 50, 51, 54

§9.2, p. 735 # 2, 3, 5, 7, 11, 12, 13, 15, 20, 25, 26, 28, 39, 30, 47, 48

§9.3, p. 746 # 2, 3, 4, 5, 8, 10, 13, 14, 23, 24, 25, 26, 29, 32, 33, 36, 37

§9.4, p. 757 **Skipped completely**

§9.5, p. 768 # 1, 2, 3, 4, 5, 6, 9, 10, 11, 13, 14, 18, 21, 23, 24, 25, 28, 29, 30, 35, 36, 37,  
40, 41, 43, 44, 46, 47, 49, 51, 54, 55, 57, 58, 59, 66

§9.6, p. 777 # 13, 14, 15, 17, 18, 20, 21, 23, 26

There is review material at the end of the chapter on pp. 780–785, including many problems you can work.

\*\*\*\*\*

The following are the **problems I CUT from the original assignment**.

§9.2, p. 735 # 35, 37, 47, 48

§9.3, p. 746 # 11, 15, 18, 19, 20, 21

§9.4, p. 757 *ALL*

§9.5, p. 768 # 68, 69, 73

§9.6, p. 777 # 1, 3, 4, 6, 7, 9, 12, 31, 33, 36, 40