Math 275: EXAM 1 TOPICS AND PRACTICE PROBLEMS

- Three-dimensional coordinate systems (Section 12.1): # 7, 9, 11, 12, 15, 35

- Vectors (Section 12.2): # 13, 21, 26, 27, 33, 38

- The dot product (Section 12.3): # 1, 7, 19, 23, 27, 29, 35, 41

- The cross product (Section 12.4): # 5, 13, 19, 27, 29, 31, 33, 35, 41

- Equations of lines and planes (Section 12.5): # 1, 4, 5, 9, 13, 15, 19, 27, 31, 37, 53, 59

- Cylinders and quadric surfaces (Section 12.6): # 11, 13, 15, 17, 21, 23, 33, 35

- Vector functions and space curves (Section 13.1): # 5, 7, 17, 21-26, 42, 43

- Derivatives and integrals of vector functions (Section 13.2): # 7, 13, 19, 21, 25, 31, 37, 41

- Arc length and curvature (Section 13.3): # 4, 11, 13, 19, 22, 25, 31, 45