

The Quiz will consist of one problem on material from the first two weeks of the lectures. Here are two sample quizzes.

Sample Quiz 1.

Consider the two parametric lines L_1 given by $\mathbf{r} = t(\mathbf{i} + \mathbf{j} + \mathbf{k}) + \mathbf{i} + \mathbf{j}$ and L_2 given by $\mathbf{r} = t(\mathbf{i} - 5\mathbf{j} + \mathbf{k}) + \mathbf{i} - \mathbf{j}$. Find parallel planes P_1 and P_2 with P_1 containing L_1 and P_2 containing L_2 . (That is find A, B, C, D, E with P_1 given as the points (x, y, z) satisfying $Ax + By + Cz = D$, and P_2 given by $Ax + By + Cz = E$.)

Sample Quiz 2.

Consider $f(x, y) = \frac{y}{x^2}$. What is the largest domain (domain in the book, natural domain in the lectures) of a function defined by this formula? Describe the level curves of this function.