

Math 4133 - Linear Algebra

Quiz #19 - 2013.03.25

Name: _____

Consider the set of functions $\mathbf{F} = \{1, x, x^3\}$, and the set of points $S = \{(0, 0), (-1, 1), (1, 4), (2, 3), (-2, 2)\}$.

1. Would you expect there to be a function which is a linear combination of functions from \mathbf{F} that passes through the data set S exactly?

2. Set up the system of equations which would determine whether or not your answer to part 1 is correct.

3. Compute the matrix you would take the determinant of to find the Wronskian of the set \mathbf{F} .