

Quiz 7

MA 262
Artur's Class

2014/10/06

Problem 1

Consider the set of vectors:

$$\mathbf{v}_1 = (0.234, 0.7, \pi)$$

$$\mathbf{v}_2 = (0.235, 0.7, \pi)$$

$$\mathbf{v}_3 = (0.236, 10, e)$$

$$\mathbf{v}_4 = (0.237, 11, e^2)$$

Are they linearly independent? (Why or why not?)

Hint: Think for a second before starting.

Problem 2

Consider the functions e^{ix} , e^{-ix} , $\cos x$

- Write down and compute the Wronskian.
- What does this tell you about the relationship of $\cos x$ and the complex exponentials. (Does the result surprise you?)