

**Math 304 Section 1 Quiz 12**

8/1/16

**Name:** \_\_\_\_\_

Let  $T$  be the vector space spanned by the two functions  $\sin(x)$  and  $\cos(x)$ . Show that differentiation is a linear transformation from  $T$  to itself. (Hint: you will need to write down an arbitrary vector in  $T$ .)

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