

**Math 304 Section 1 Quiz 13**

8/2/16

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

Fill in the blanks in the following definitions and theorems.

1. A linear transformation  $F$  from a vector space  $V$  to a vector space  $W$  is called an \_\_\_\_\_ if there is a linear transformation  $G$  from  $W$  back to  $V$  so that  $GF$  is the identity transformation on \_\_\_\_\_ and  $FG$  is the identity transformation on \_\_\_\_\_.
2. A linear transformation is an \_\_\_\_\_ if and only if it is a one-to-one correspondence.
3. If a vector space has a basis of  $n$  elements and a basis of  $m$  elements, then \_\_\_\_\_.

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