Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MTH 305 – 7th edition**

**Section 5.4 Functions**

**True or False (Write the word True or False in the blanks.)**

\_\_\_\_\_\_\_\_1. A function means that every element in the domain must have an image.

\_\_\_\_\_\_\_\_ 2. An onto function means that every element in the codomain must have a preimage.

**\_**\_\_\_\_\_\_\_ 3. An onto function means that every element in the domain must have a preimage.

\_\_\_\_\_\_\_\_ 4. An onto function means that every element in the codomain must have a preimage.

\_\_\_\_\_\_\_\_ 5. A one-to-one function means that every element in the domain must have a unique image.

\_\_\_\_\_\_\_\_ 6. A one-to-one function means that no two elements in the domain map to the same element in the codomain.

\_\_\_\_\_\_\_\_ 7. An onto function means that (the range) ∩ (the codomain) = (the codomain).

\_\_\_\_\_\_\_\_ 8. A binary relation on S X T that is not one-to-many or many-to-many is a function from S to T.