*Review 5.1-5.3 (****Key****)*

1. Determine if the graph represents a one-to-one function.



2. Determine if the graph represents a function that has an inverse; explain your decision.



3. Given , find the domain of the inverse.

4. Find the inverse function for = .

5. Given the graph of , graph its inverse along with *y* = *x*; label the inverse .



6. Luis bought a new car and the total loan (all charges included) is $over a 48 month period. His monthly payment will be $422, with the outstanding amount denoted by

 = , where is the number of months paid towards the loan.

 a. Find and interpret its meaning.

 b.  Find the inverse of the given function.

 c. Find and interpret its meaning.

7. Let and . Find the following. State any restrictions for , when

 applicable.

 a. b. c.

 d. e. f.

8. Let and . Find the following.

 a. b.

9. Use the graph below to evaluate (◦ ).



10. Determine if and are inverses of each other.