

=====

Problem 1.A

True : 0

=====

Problem 1.B

False: 2

=====

Problem 1.C

False: 10

=====

Problem 1.D

False: 2

=====

1.E

Negated statement is True: 5

Original is True: 5

Since original and negated are equal, De Morgan's Law for Existential Quantifiers Holds

=====

Problem 1.F

Negated statement is True: 5

Original is True: 5

Since original and negated are equal, De Morgan's Law for Universal Quantifiers Holds

=====

Problem 2.A

False:  $x = 1, y = 2$

=====

Problem 2.B

True for all X and Y

=====

Problem 2.C

True for all X and Y

=====

Problem 2.D

False:  $x = 1, y = 2$

=====

Problem 2.E

False:  $x = 2, y = 1$

=====

Problem 2.F

True:  $x = 1, y = 1$