

AMERICAN UNIVERSITY OF BEIRUT
Faculty of Arts and Sciences - Mathematics Department
Fall 2011 - 2012
Checkpoint 1

Name:.....

Determine the truth value of these statements if the domain of each variable consists of all real numbers. Justify your answer.

a) $\forall x \exists y (x^2 = y)$

b) $\forall x \exists y (x = y^2)$

c) $\exists x \exists y (x + y = (x + y)/2)$

a) $\forall x \exists y (x + y = 2 \wedge 2x - y = 1)$