

Please show **all** your work! Answers without supporting work will not be given credit. Write answers in spaces provided. You have 10 minutes to complete this Quiz. The first problem is worth $(2 + 5) = 7$ marks and the second problem is worth 3 marks.

Name: _____

1. (a) Express the n^{th} **odd** natural number as a function of n . No proof is needed, just write down the answer.
(b) Use mathematical induction to prove that the sum of the first N **odd** natural numbers is equal to N^2 .

2. Find the value $\tan(690^\circ)$. You may use the identities and trigonometric values mentioned in class.