Name and Surname:
Student Number:

<center>Math 366 - Spring 2015 - METU</center>

<center>**Quiz 4**</center>

Question 1: Consider the quadratic field $\mathbb{Q}(\sqrt{d})$ for some squarefree integer d. Give the definitions of

- conjugation

- trace map

- norm map

Question 2: Let α and β be nonzero elements of $\mathbb{Q}(\sqrt{d})$. Show that

- $(\alpha\beta)' = \alpha'\beta'$.

- $N\left(\dfrac{1}{\alpha}\right) = \dfrac{1}{N(\alpha)}$.