

Ideas in Mathematics
Math 170, Spring 2016
Quiz 3

In class on Wednesday we provided the following definition of an odd number:

Definition. *An odd number is an integer of the form $n = 2k + 1$, where k is an integer.*

1. Provide a good definition of an even number.

2. Consider an odd number n . Prove that $n^2 + n$ is always even.

3. Outside of mathematics, making definitions precise is often difficult. Provide a precise definition for a table (the kind at which you eat) so that it is consistent with our intuitive idea of a table. Every object satisfying the definition should be something we call a table, and everything we call a table should be included in this definition.
