

Worth: 2%**Due:** By 6pm on Wednesday 25 February

1. Write a *detailed* proof of the following statement.

For all integers n , n is odd if and only if $\lfloor \frac{n}{2} \rfloor = \lfloor \frac{n-1}{2} \rfloor$.

Use the proof structures shown in class, and explain what you are doing (and why)—in particular, start by translating the statement into symbolic notation. In your proof, use the formal definition of $\lfloor x \rfloor$ given at the **bottom** of page **43** of the lecture notes when you need to reason about the “floor” function.