

The majority of the credit you receive will be based on the completeness and the clarity of your responses. **Show all of your work and justify your solutions as much as possible.**  
This is a 15 minute quiz and has 1 questions, for a total of 10 points

(10 points) 1. Let  $x, y \in \mathbb{Z}$ . Prove that if  $x$  and  $y$  are odd, then  $xy$  is odd.