
Homework 3
Due: Friday, October 10

1. Find the converse and contrapositive of each of the following statements. *You don't have to prove any of them.*
 - (a) If two integers are odd, then their product is odd.
 - (b) If a quadrilateral is not a parallelogram, then its diagonals do not bisect.
2. Prove, by contradiction, that if a and b are integers and b is odd, then -1 is not a root of $f(x) = ax^2 + bx + a$.
3. Prove, by contradiction, that the real number $\sqrt{3}$ is irrational.