

Part I (due Wednesday, September 7 at the beginning of class)

Read [this selection](#) from Chapter 2 of A TeXas-Style Introduction to Proofs about different types of proofs. No reading questions this time, but please bring your examples of even and odd from Daily Work 5 Part I with you to class Wednesday so we can discuss them.

Part II: Exercises (for presenting Monday, September 7)

1. Prove/disprove each statement (if true, prove; if false, give an explained counterexample and then try to fix the statement as strongly as possible and prove the fixed version):
 - (a) If x and y are integers with the same parity, then $x + y$ is even.
 - (b) If x is an integer and y is odd, then xy has the same parity as x .
 - (c) If x is an integer, then x^2 has the same parity as x .

Part III: Problems (due Friday, September 11, at the beginning of class)

1. Prove or disprove: the product of consecutive integers is even.