

UCSB: MATH 8
SECTION EIGHT QUIZ
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Name:

Problem 1

The statement below can be proven using any of the three proof techniques discussed thus far in class—direct proof, proof by contrapositive, and proof by contradiction. **Choose two of the three techniques and write two different proofs for the following statement.** Be clear about which technique you are using in each answer.

Statement: If a and b are consecutive integers, then the sum $a + b$ is odd. (Consecutive means “in a row,” so for example, 3 and 4 are consecutive integers, -1 and 0 are consecutive integers, etc.).

Scratch Work

First Proof

Second Proof