Proofs (A)

Show that the statement "$n^2 + n + 3$ is prime for all positive integers n" is false.

Prove that the product of two odd integers is odd.

Prove that the sum of any three consecutive integers is divisible by 3.

Proofs (B)

Prove that the sum of two odd integers is even.

Prove that the sum of any three consecutive integers is divisible by 3.

Show that the statement "$n^2 + 1$ is prime for all positive integers n" is false.

Proofs (C)

Prove that $n^2 + n$ is even for all integers n.

Show that the statement "$2n + 1$ is prime for all positive integers n" is false.

Prove that the difference of two odd integers is even.

Proofs (D)

Prove that the sum of two odd integers is even.

Show that the statement "$2n + 1$ is prime for all positive integers n" is false.

Prove that the product of two consecutive integers is even.

Proofs (E)

Show that the statement "$n^2 + 1$ is prime for all positive integers n" is false.

Prove that the square of any even integer is divisible by 4.

Prove that the product of two odd integers is odd.

Proofs (F)

Prove that the sum of two odd integers is even.

Show that the statement "$n^2 + 1$ is prime for all positive integers n" is false.

Prove that $n^2 + n$ is even for all integers n.

Proofs (G)

Prove that the product of two odd integers is odd.

Show that the statement "$n^2 + 1$ is prime for all positive integers n" is false.

Prove that $5n + 10$ is divisible by 5 for all integers n.

Proofs (H)

Prove that the product of two odd integers is odd.

Prove that $n^2 + n$ is even for all integers n.

Show that the statement "$n^2 + n + 3$ is prime for all positive integers n" is false.

Proofs (I)

Prove that the difference of two odd integers is even.

Show that the statement “the sum of two odd integers is odd” is false.

Prove that $n^2 + n$ is even for all integers n.

Proofs (J)

Prove that the square of any even integer is divisible by 4.

Prove that the product of two odd integers is odd.

Show that the statement "$2n + 1$ is prime for all positive integers n" is false.