

Problem Set 0 - Sample Problem Set

by Alice Exception

Please read the sections of the syllabus on problem sets and honor code before starting this homework.

1. [11 points] Prove that for every odd integer n , $n^2 - 1$ is divisible by 8.

Solution $1^2 - 1 = 0$, which is divisible by 8. $3^2 - 1 = 8$, which is divisible by 8. $5^2 - 1 = 24$, which is divisible by 8. And so on. Therefore, if n is odd, $n^2 - 1$ is divisible by 8.

$R=2$ ← Set-up not clear. Need to explain $1^2-1=0$.
 $V=0$ ← Only prove for some n , not every odd n .
 $C=2$

4/11