

Instructions: Do the Thinking Land and proof scratch draft of your group's Theorem on the your groups's AWW board. Then submit a group Latexed final version of your proof. Each group member is to fill in their group number on Bb's §3.6 GW in the wite comment box (so I can assign grades). One submission per group by the group's designated group submitter is sufficient as long as each group member's PIN is on the one submission; thus, write your PIN on your AWW Board.

Group 1. AWW Board Link. Exercise 3.6.1.

Prove that each point on or inside the circle whose equation is $(x - 1)^2 + (y - 2)^2 = 4$ is also inside the circle whose equation is $x^2 + y^2 = 26$. Recall, the point (a, b) is:

- inside the circle $(x - h)^2 + (y - k)^2 = r^2$ provided $(a - h)^2 + (b - k)^2 < r^2$
- on the circle $(x - h)^2 + (y - k)^2 = r^2$ provided $(a - h)^2 + (b - k)^2 = r^2$.

Group 2. AWW Board Link. Exercise 3.6.3a.

Prove that for each integer a , if 3 does not divide a , then 3 divides $2a^2 + 1$.

Latex help: $3 \nmid a$ and $3 \mid (2a^2 + 1)$.

Group 3. AWW Board Link. Exercise 3.6.4.

Prove that for each real number x and each irrational number q , one has that $(x + q)$ is irrational or $(x - q)$ is irrational.

Proof. cut this out and put your proof here

