

Bayu

Dennis

Josh

Walker

Queenie

Kaela

Peter

Tiansheng

Jac

Jiaqi

David

Jack

Sabrina

Alex

Cater

Ethan

Matt

Roody

Fahmid

Jameel

Charlotte

Mark

Will

Katelyn

Paul

Youssef

JB	Franklin	Hugo	Deen
Danzan	Cynthia	Gretchen	Ding
Kaylen	Samantha	Siyuan	Michael
Ruben	Jeff	Majd	
Corey	Assadou	Axel	Peter
Jake	Leah	Ben	Wayne
	Isha		Joe

# Goals

- Describe structure/logic of inductive proof
- Write an inductive proof.

## Announcements

- Self grading proofs
- TA question
- How is the schedule working?
- Group work reflection now mandatory...will be reading group reflections together.

# Group Problem Solving

1. Put the sentences in the correct order
2. Find the errors in the proof
3. If you've finished, try writing an inductive proof that the sum of the first  $n$  odd numbers is  $n^2$ .

# Inductive Proof Recipe:

- Set-up (need a predicate  $P(n)$ )
- Base Case
- Inductive Case (assume  $P(k)$ )
- Conclusion

Prove:  $2^n - 1 \leq 3^n$  for all  $n \geq 0$ .