

# Peer Instruction

- I pose a *challenge question* (often multiple choice), which will help solidify understanding of topics we have studied
  - Might not just be one correct answer
- You each get some time (1-2 minutes) to come up with your answer and vote – use Mentimeter (anonymous)
- Then you get some time to convince your group (neighbors) why you think you are right (2-3 minutes)
  - Learn from and teach each other!
- You vote again. May change your vote if you want.
- We discuss together the different responses, show the votes, give you opportunity to justify your thinking, and give you further insights

# Peer Instruction (PI) Why

- Studies show this approach improves learning
- Learn by doing, discussing, and teaching each other
  - Curse of knowledge/expert blind-spot
  - Compared to talking with a peer who just figured it out and who can explain it in your own jargon
  - You never really know something until you can teach it to someone else – More improved learning!
- Learn to reason about your thinking and answers
- More enjoyable - You are involved and active in the learning

# How Groups Interact

- Best if group members have different initial answers
- 3 is the “magic” group number
  - You can self-organize "on-the-fly" or sit together specifically to be a group
  - Can go 2-4 on a given day to make sure everyone is involved
- Teach and learn from each other: Discuss, reason, articulate
- If you know the answer, listen to where colleagues are coming from first, then be a great humble teacher, you will also learn by doing that, and you'll be on the other side in the future
  - I can't do that as well because every small group has different misunderstandings and you get to focus on your particular questions
- Be ready to justify to the class your vote and justifications!