

# Introduction to Clickers

## Part 1: Tech & Prep

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# Outline

## Part 1 (today)

- Setting up the technology
- Reasons for using clickers
- Lecture notes → clicker questions

## Part 2 (mid September)

- How to ask a clicker question
- How to respond to the students
- Novel uses of clickers

## Things I will share

- These slides
- Additional resources on clicker 'best practices'

# What is a clicker?

Clickers are an audience response system that gives you real time feedback from students.

The generic term is 'clicker' but at UBC we use the 'iClicker'

- I still just call this a 'clicker'

# Let's play

Read the back of the clicker and change the frequency to 'AD'

Clicker Q: I want to use clickers for:

- A) Checking if the students are following/understanding
- B) Assessing their prior knowledge
- C) Correcting Misconceptions
- D) Encouraging group work
- E) Stimulating whole class discussion

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Any other reasons?

# Set up & Technology

Things to do:

- Download the [software](#) (new for Canvas)
  - Put on laptop or USB
  - Set course preferences (grading)
- Connect to the clicker base
  - A switch is hidden in the podium
- Have students register their clicker on [Canvas](#)
  - And *eventually* sync the grades through the clicker Gradebook

# Reasons for Using Clickers

Some advantages:

- If they know it - move on
- Enhances group work (eg. pairs)
- Easier to start a conversation
  - Do you like 'A' or 'B'?
- Enriches class discussion
  - Student questions/comments will be deeper
  - You'll hear from more students
- Student commit to an answer
  - And will be more likely to change their opinion if they chose wrong
- General polling
  - Set office hours
  - % of class that is lost or confident/not confident

# Creating Clicker Questions

We probably already have notes ... how to get the questions?

Aside: does everyone have a course in mind right now?

Tips:

- Do you know any common misconceptions?
- After some lecture - ask them a question you think will demonstrate understanding
- Do you suspect they already know this? See if they do.
- Think 'what do I want them to be able to do.'
- Clickers will shine on more conceptual questions

# Example Clicker Qs

With your particular course in mind - try to come up with a clicker question.

I also have a few examples from my own lectures.

Replace Examples in Lecture  
Address Misconceptions

# Clickers: Some Examples

Clicker Q: Can a function cross its horizontal asymptote?

A) Yes

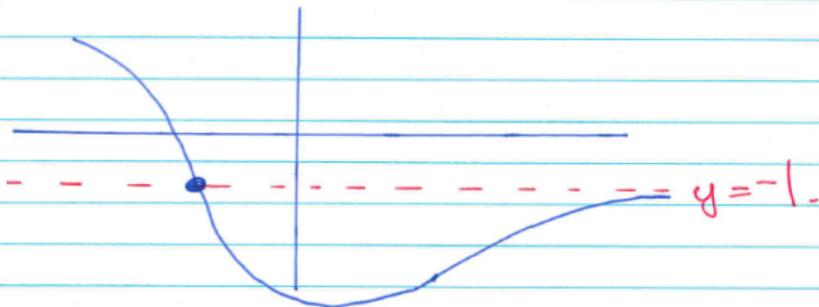
B) No

Clicker Q: Can a function cross its horizontal asymptote?

→ A) Yes 33%

B) No 67%

C) Don't know



# Clickers: Some Examples

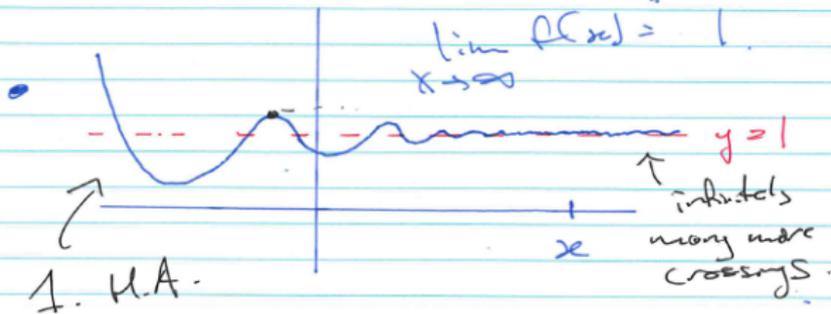
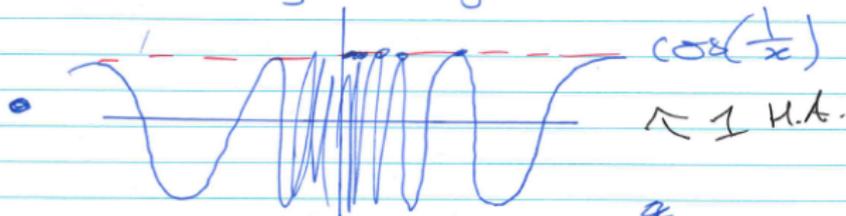
Clicker Q: How many times can it cross its h.l.a.

A) 1  
B) 2

C) a few times (finds many).

D) ~~infinitely many times~~

→ infinitely many times.



A few points to bring up:

- Talk to your students about why you're using clickers
- Have a clear pedagogical goal in mind

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Clicker Q: Should you give grades for getting the correct answer?

A) Yes

B) No

# Clickers!

Feel free to come to me with questions or for support.

And thanks!

# Clickers!

## The Clicker “song and dance”

- Display or write the question (don't read it aloud)
- “Take 1 minute to think about this on your own”
  - or “feel free to discuss with your neighbour”
- \*Instructor can walk around, listens to conversations, facilitates as desired\*
- “Ok, click in, I'm going to close the poll”
- Respond

## A few response strategies

- Validate the correct answer. Brief justification. Move on.
- Validate correct answer. Ask students for an explanation.
- Show results. Narrow the options. “Find a different opinion and come to a consensus”
- “Can I hear an argument from B”
- Exclude an answer: “Lots of B’s ... that’s not the answer”
- “Can I hear an argument for why not C?”

## Other things we could talk about

- Makes it really easy to ask as specific question to start a conversation: “do you like A or B?”
- Great for diagnosing or treating a misconception
- Just for participation (or not for marks at all)
- Talk with your students about why you are using clickers
- Culture: E always means “I have no idea”
- Conceptual vs Computational clicker questions