1. (Discussion)
   (a) What characteristics make a good talk?
   (b) When preparing for talks, what do you do to make your talk better?

2. Here is an example of talk notes. Is it clear to you what the flow is? How can we improve the note without changing the contents too much?

Let $E/\mathbb{Q}$ be an elliptic curve. We say $E$ has CM if

$$\text{End}_\mathbb{Q}(E) \neq \mathbb{Q},$$

where $\text{End}_\mathbb{Q}(E) = \text{End}(E) \otimes \mathbb{Q}$.

$a:$ $y^2 = x^3 - x$

Prop. $\text{End}_\mathbb{Q}(E)$ is imag. quad.

$a:$ $E \cong \mathbb{C}/\mathbb{Z}w_1 \oplus \mathbb{Z}w_2$

$Z := \frac{w_1}{w_2}$

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*Academic Year 2018 Department Pedagogy Fellow*
3. Some concrete tips about preparing for notes.

**Before beginning to write notes, think about:**

- **Length**: How many pages of note give an one-hour talk?
- **Contents**: Motivation, Background, Examples, Theorems, and Proofs.
- **Flow**: State the main theorem or goal as early as possible
  - Theorem -> Ingredients of the proof -> Proof
    eg. Fermat’s last theorem
  - Motivation -> Background -> Theorem -> Proof ideas
    eg. Technical theorems

**While writing notes, keep in mind the two principles:**

- Write on the notes exactly what you want to write on the board.
- Audience should be able to understand the structure of the talk from the board.

**More concrete tips:**

- **Environment**: Cut sections and paragraphs clearly
  - Write down “Section”, “Definition”, “Theorem”, “Proof”, etc.
  - To mark the end, draw a horizontal line or start a new board
- **Line Control**: Always start a new sentence in a new line
- **Transition**: Make clear the transition between sections or paragraphs
- **Example**: Example -> General Theory or General Theory -> Example
- “Key words” are easier to read than ”full sentence”.
- **Avoid heavy notations**
- **Introduce notations one by one**
- **Use abbreviations only if it is well-known or after it is introduced**
- “Arrows” are easier to follow than “where”

4. Some concrete tips about boardwork.

- **Clear Writing**
  - Erase the board completely
  - Write large enough
  - Separate characters, especially names
  - Color chalks: “yellow, orange” are clearer than “red, blue”.
    (The latter can be used for circling or drawing a curve.)
- **Use Board space linearly**
  - Draw vertical lines to divide the board into suitable widths
  - Write from up to down, left to right
  - Align text to the left
  - Measure the board and decide where to write what beforehand
    (for extremely important talks)

5. Feedback forms for talks