How to Build a Boat

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A tongue-in-cheek quote

'Here's to pure mathematics—may it never be of any use to anybody.'   -Various

Complications

▶ Why, then, do people study pure math?

▶ Key: definition of the word "use"

- Applications vs. Utility

- Applications: not the only way to define "use."

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- ▶ Key: definition of the word "use"

  - ■ Applications vs. Utility

  - ■ Applications: not the only way to define "use."

- ▶ What math can be: a vehicle for meaning

  - ■ Intellectual curiosity

  - ■ Perspective and empowerment

  - ■ Community

Why does that sound so elitist?

- ▶ For many, it's simply not an option (regardless of any notion of "talent").
  - ■ Accessibility of materials
  - ■ Traumatic experiences

'Honestly Forest, I think your biggest problem is that you're just not as smart as you think you are. And the sooner you learn to accept that, and stop trying to change it, the better for all of us.'
-My PreCalc teacher

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- ▶ Rebuilding and moving forward
  - ■ Heavily entangled with forms of privilege

- ▶ The leaky pipeline

"Freedom is nothing but a chance to be better."

-Albert Camus

Moving forward

- ► The issue: multifaceted
    - ■ Deep societal undercurrents
- ► Palliative measure:
    - ■ Fighting to improve education
- ► Dual role of a teacher:
    - ■ Teacher as an instructor
    - ■ Teacher as a source of inspiration
- ► Focus:
    - ■ Improve quality and accessibility of resources
    - ■ Improve outreach

A final quote

'If you want to build a ship, don't drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea.'

-Antoine de Saint-Exupéry