



**Core-essential theory**

Inspired by GS 551 with Cle Trapnel

- 20 students in a class, numbered  $1, 2, \dots, 20$
- Each day of class, professor rolls 20-sided die to choose a student to call on

Question: How many classes do I expect it to take me to get called on?

Each class  $I$  get called w/ Prob.  $\frac{1}{20}$

$$\Rightarrow E[T] = \frac{1}{1/20} = 20 \text{ classes}$$

# Cole-scent theory

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# Cole-escent theory

Question: How many classes do you expect until all 20 students have been called on?