# COLLABORATIVE TESTING

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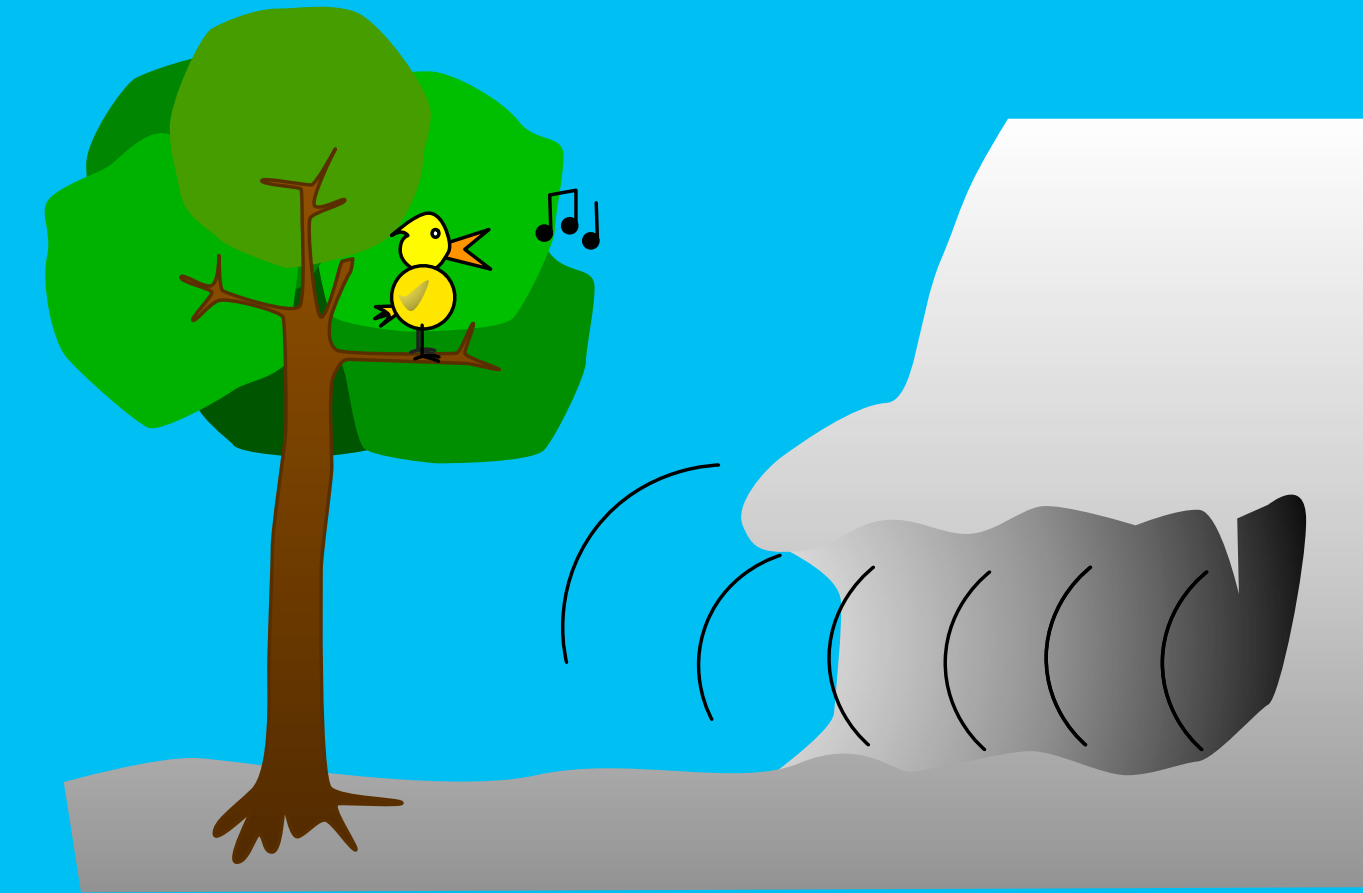
# LUNCH TEST

Grab some paper

Grab a pencil

# LUNCH TEST

**Q**. Create a discrete model (recursive sequence) for the following bird song.

A bird is chirping to find a mate. Unfortunately, he is standing next to a cave which echoes its chirps.
This is what is happening:

$(P_1)$     The bird chirps every minute, and its maximum volume is $M$

$(P_2)$     The cavern echoes sounds with half of the original volume

$(P_3)$     The cavern echo reaches the bird in less than one second

$(P_4)$     If the bird hears a chirp, then its next chirp will have a volume proportional to the volume of the chirp it just heard times the difference between the maximum volume it is capable and the volume just heard
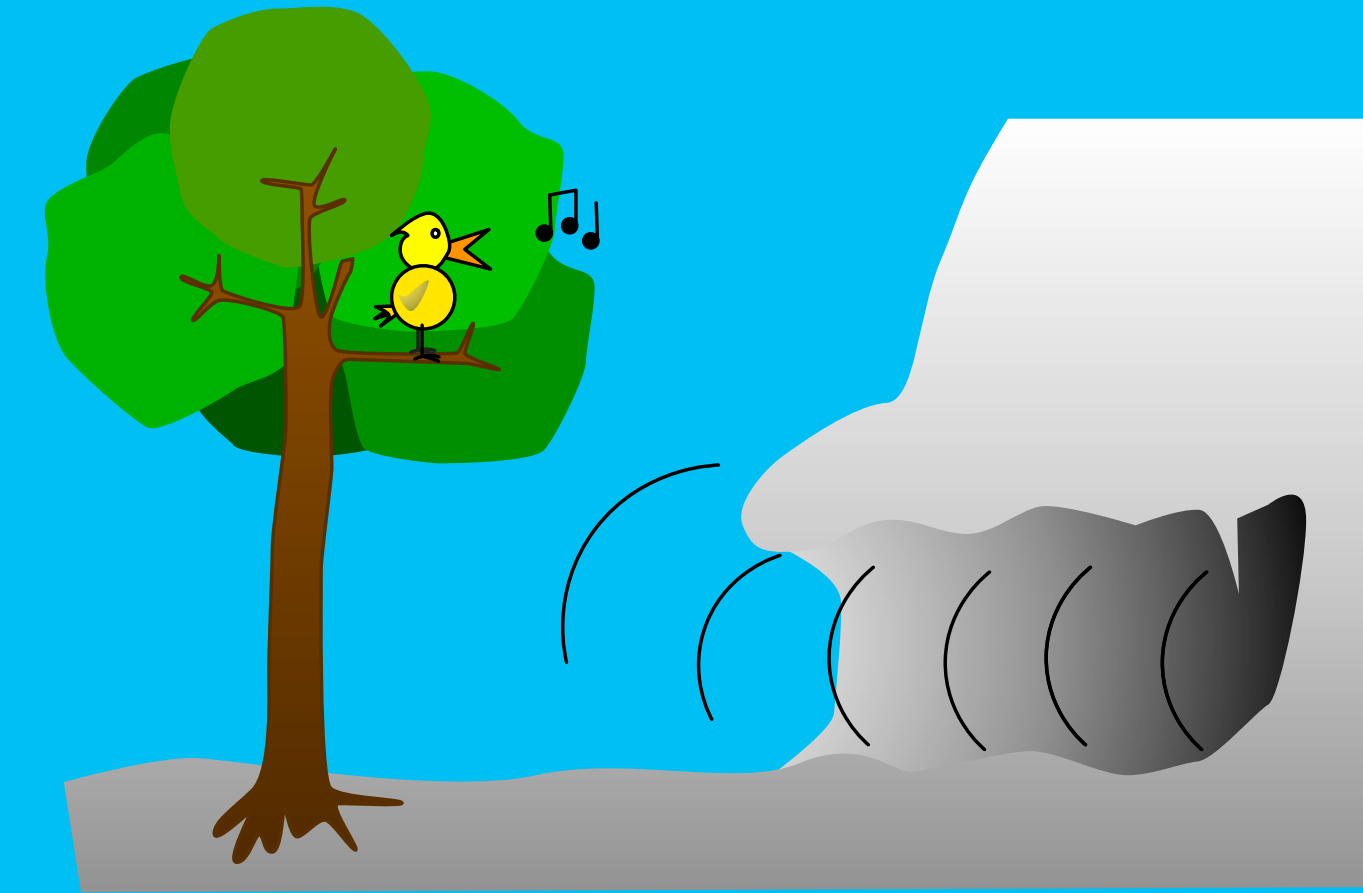
# LUNCH TEST

Please stop writing

# LUNCH TEST

**Q₁**. Create a discrete model (recursive sequence) for the following bird song.

A bird is chirping to find a mate. Unfortunately, he is standing next to a cave which echoes its chirps.
This is what is happening:

$(P_1)$     The bird chirps every minute, and its maximum volume is $M$

$(P_2)$     The cavern echoes sounds with half of the original volume

$(P_3)$     The cavern echo reaches the bird in less than one second

$(P_4)$     If the bird hears a chirp, then its next chirp will have a volume proportional to the volume of the chirp it just heard times the difference between the maximum volume it is capable and the volume just heard

**Q₂**. It just happens that the bird's volume is always the same. What is it?

**Q₃**. Find conditions on the proportionality constant that allow for this situation.

# IDEA

1. **Students write traditional individual test**

2. **Get individual tests back**

3. **Students get together with their team members**

4. **Distribute group tests**

5. **Students write group test as a team**

# LOGISTICS

* **Test rooms assigned by tutorial section** (instead of last name)

* **Students create teams before test** (have to be in the same room)

* **Instructor/TA training**

* **Crowdmark** 🙂 **, Gradescope** 🙁

# RESOURCES

* **UBC — http://blogs.ubc.ca/wpvc/two-stage-exams/**

* **Crowdmark — https://crowdmark.com/blog/the-case-for-two-stage-exams/**

# PROS

Fewer tests to grade

Allows for deeper questions

Less stressful for students

Students are tested on how they work
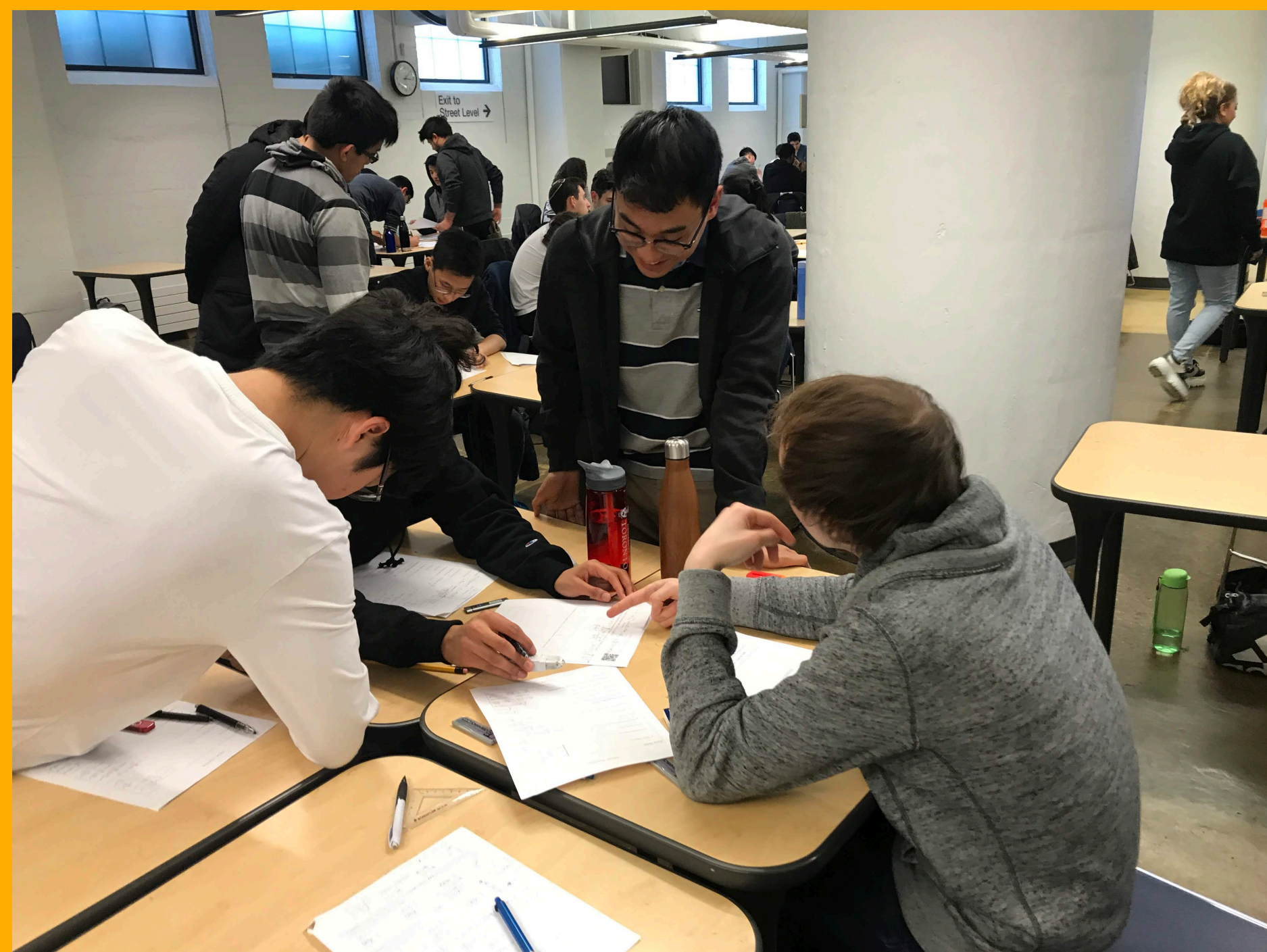
as a team

Better grades

Students learn during a test

# CONS

Shorter test

Need invigilation training

Matching tests twice

Shock of learning that they made a

mistake

PHOTOS

# QUESTIONS ?