



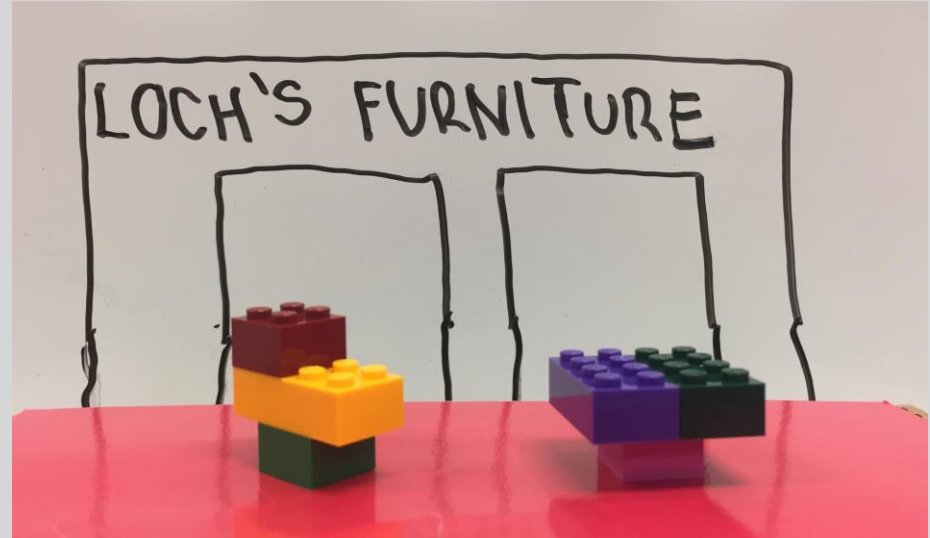
CROWDSOURCED ALGEBRA

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FUNKY FURNITURE

You are the owner of a furniture shop, which specializes in full-sized, Lego-inspired furniture.

Your supplier can provide 30 rectangle components and 20 square components.



credit for being awesome – Fawn Nguyen.
fawnnguyen.com

FUNKY FURNITURE



Linear Programming extension:

Tables provide \$50 profit per table sold, and chairs provide \$40 profit.

How many of each should your factory produce?

PROMOTING EQUITY IN MATH CLASS

“As students worked in math, they were taught to appreciate the contributions of different students, from many different cultural groups and with many different characteristics and perspectives. It seemed to me that the students learned something extremely important through this process – something that would serve them well in their future interactions in society.”

- Jo Boaler, Mathematical Mindsets

WHAT IS CROWDSOURCING?

Leveraging students' collective ideas and contributions to develop mathematical ideas.

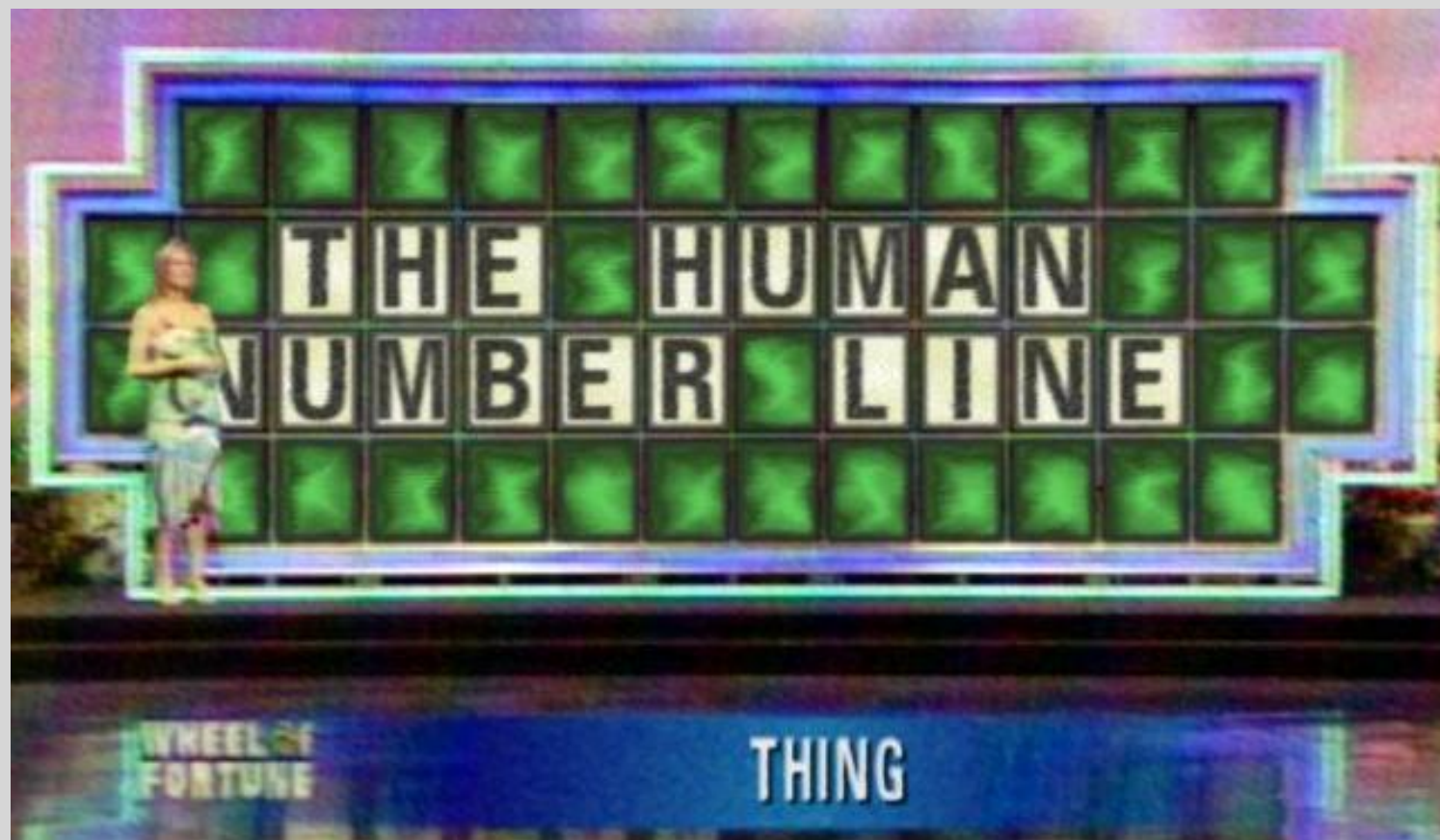


WHAT DOES CROWDSOURCING LOOK LIKE?

- Class movement - activities
- Sharing responses
- Tasks with defined roles
- Classroom structure (jigsaws)
- Technology-driven tasks

WHY CROWDSOURCE?

- All students have a voice
- All students have a clear role
- Students take responsibility for the learning of all
- Students are responsible for critiquing peer work in a productive manner



WHEEL OF
FORTUNE

THING

HUMAN NUMBER LINE – ROUND 1

$$x > -2$$

$$x \leq 5$$

$$-2x + 1 \geq 7$$

HUMAN NUMBER LINE – ROUND 2

$$x > -2 \text{ or } x \leq -6$$

$$x \leq 5 \text{ and } x \geq -7$$

$$2x + 1 > 7 \text{ and } x + 4 < 2$$

HUMAN NUMBER LINE – ROUND 3

$$|x - 3| = 6$$

$$|x| \geq 5$$

$$|x - 2| \leq 6$$

SHARE IDEAS: <http://padlet.com/bobloch/NCTM>

STRUCTURING THE ACTIVITY

- Most students hold cards
- Others act as observers – verify & critique
- Change roles
- Make observations – index cards & doc cam or padlet
- Take pictures / reflect and share

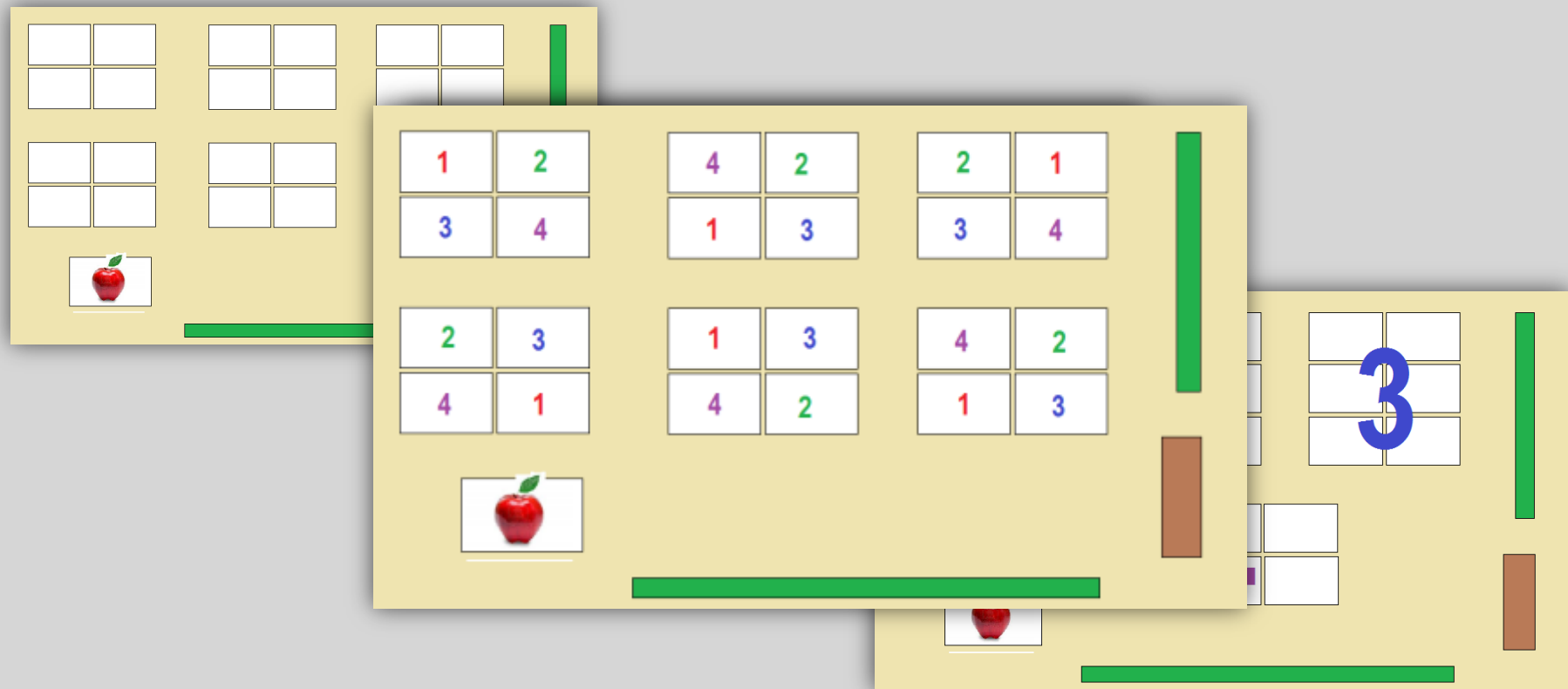
LOW TECH → HIGH TECH

- Desmos Activity Builder
- "Discovering Linear Inequalities"
- Work in pairs – encourage discussion of responses
- STUDENT.DESMOS.COM
- **Class code: 8QT5K**

AN ALGEBRA 2 JIGSAW



AN ALGEBRA 2 JIGSAW



LET'S GET MOVING!

Need: 4 volunteers, meter stick, stopwatch and cloth tape

<https://vimeo.com/64601976>

Mathcoachblog.com, search for “trig whip”



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