OUR COURSE SEQUENCE

- Pre-Algebra
- Math Literacy
- Intro Stat, Liberal Arts Math
- Intermediate Algebra
- College Algebra
WHAT ARE THE “EXTRAS” IN MATH LITERACY?

• Technology
• Projects
• Writing assignments
• Emphasis on collaboration
SPREADSHEETS

• Pie Chart
• Calculating Grades
• Change and Relative Change for Linear and Exponential Growth
• Estimating Line of Best Fit
• Calculating Line of Best Fit and Residuals
• Exponential Decay of Caffeine
PROJECTS

• Car depreciation
• Student loans
• Road trip
• Food truck
• Linear/exponential growth (open-ended)
WRITING ASSIGNMENTS

• Reflections
• Math biography
• Self-assessment of meeting learning objectives
MATH LITERACY IN A CLASSROOM

• Challenges
  – Allowing for differences in instructor styles
  – Helping students adjust
MATH LITERACY AS AN ONLINE COURSE

• Goal: Maintain critical thinking and collaboration while streamlining the experience to avoid busywork
• Strategies
  – Discussion boards
  – Online activities: Desmos, etc
  – Group projects with online collaboration tools (Office 365, Google Drive)
Create Your Own Spinner

Drag the movable point to create a spinner where:

Landing on RED is almost IMPOSSIBLE.
Landing on BLUE is almost CERTAIN.

Then press "Submit" and continue to the next screen.

Submit

36 Rounds

Here’s the spinner you created on the previous screen.

You said that landing on RED is almost impossible, and landing on BLUE is almost certain.

Press "Spin" to play the game 36 times.

When you finish, continue to the next screen.

<table>
<thead>
<tr>
<th>Number of Spins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landed on Red</td>
</tr>
<tr>
<td>Landed on Blue</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
DESOMS – EQUATIONS OF LINES

www.desmos.com
Marbleslides: Lines
Calculate how wide each space should be.

The lot is 41 feet wide.
The dividers are each 6 feet wide.

Help your friends!
Write instructions explaining how to calculate the right width of the parking space for any situation.
Use variables to write an expression for the ideal width \((d)\) of each space.

For each of the lots below:

- \(w\) is the width of the lot
- \(p\) is the width of each divider

\[
d = \frac{(w - 3p)}{(p + 1)} \text{ ft}
\]

Reset

The number of dividers can change now.

How wide should each space be if there are \(n\) dividers?

- \(w\) is the width of the lot
- \(p\) is the width of each divider
- \(n\) is the number of dividers

\[
d = \frac{(w - np)}{n+1} \text{ ft}
\]
MATH LITERACY AS AN ONLINE COURSE

• Challenges
  – Lack of in-person support for non-traditional aspects of the course
  – Group projects
MATH LITERACY AS A HYBRID COURSE

• Goal: Provide some of the flexibility of an online course with some of the support of an on-campus course

• First attempt: Colossal failure
  – Goal was to have students start on basics alone, work on harder stuff in class (like a flipped class)
  – Class was Tuesday, due dates on Sunday
Math Literacy as a Hybrid Course

• Challenges
  – Irregular attendance makes groups unstable
  – Students wait until class to start the week’s assignments so aren’t ready for advanced material

• Strategies
  – Make assignments due shortly after class period
  – Treat it more like an online class with a tutor hour
TRAINING FOR MATH LITERACY INSTRUCTORS

• Meeting with Coordinator
  – Brief overview
  – Discuss expectations
• Class Observations
  – Observe at least two instructors
TRAINING FOR MATH LITERACY INSTRUCTORS

• Advanced Training: Group work facilitation course
  – Based on Designing Groupwork: Strategies for the Heterogeneous Classroom, by Cohen and Lotan
  – Weekly readings and discussions, with a capstone project
  – Units: Benefits of Groupwork, Setting up Classroom Norms, Planning Groupwork,
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