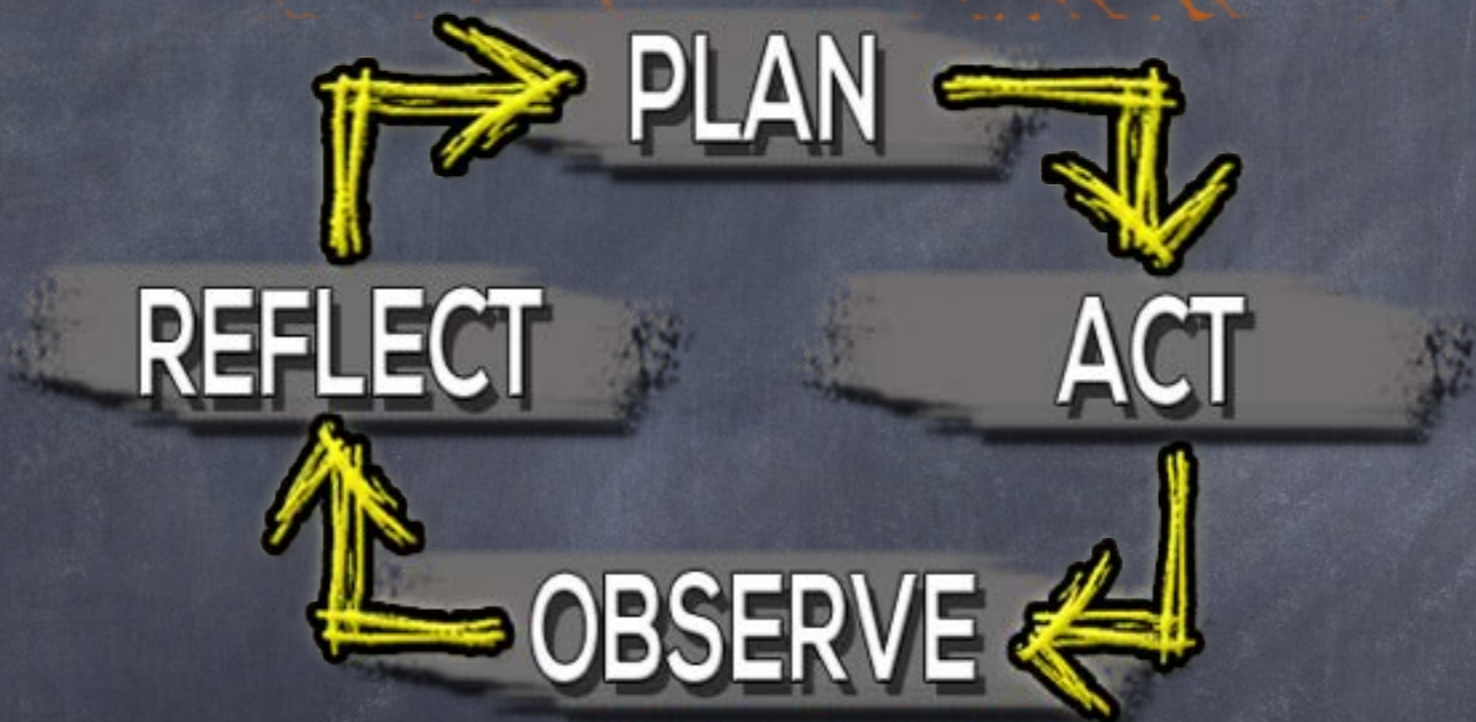


MYCI 2013-14

Middle Years Collaborative Inquiry

www.tapintoteenminds.com



MATHEMATICS

SESSION #5



@MathletePearce



www.tapintoteenminds.com



@JustinLevack

Agenda

- Sign-in via Session #5 Google Docs
- Analyze & Submit Cycle 3 Data
 - Celebrate MYCI Successes
- Planning for Cycle #4 / Team Prompts
- Learning Fair Details
- Visualizing Math With Algebra Tiles
- Ticket Out The Door



LEARNING FAIR DATES

- Each team will participate in one **full day** learning fair date listed below:



Sandwich Family, TVA Family, and Central PS

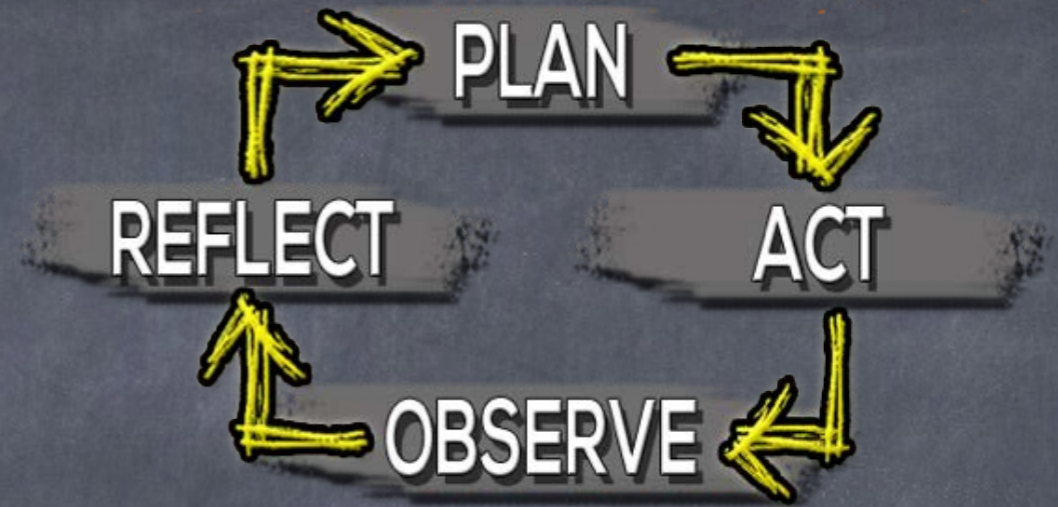


Walkerville Family, Essex Family, and Harrow



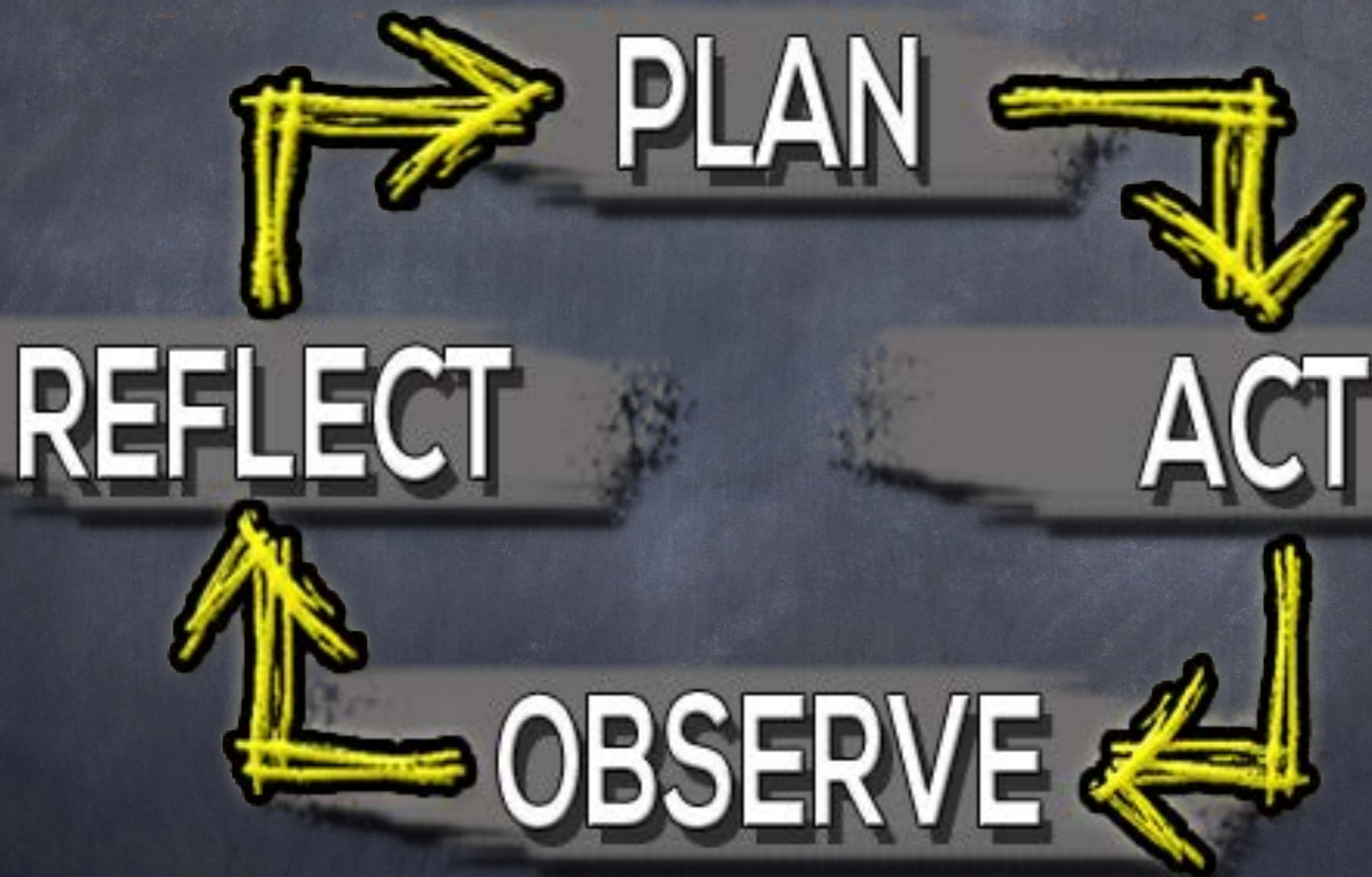
Masseys Family and General Amherst Family

Learning Fair Agenda



- Consolidate Cycle #4 Data
- Team Sharing Jigsaw
- Team Task – Grade 9 Applied EQAO
- Student Data Analysis (EQAO, strands, etc.)
- Team Planning As You Look Ahead to Next Year

Professional Learning Cycle



iCloud

calendar.google.com

PublicBoard.ca

Gmail

Delegates

April-2014

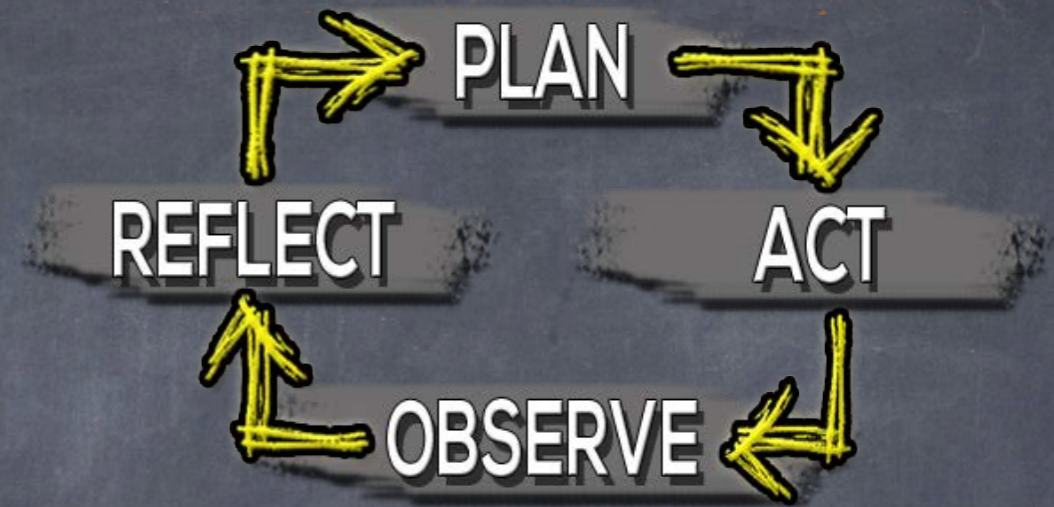
◀ Today ▶

Sun 30	Mon 31	Tue 1	Wed 2	Thu 3	Fri 4	Sat 5
CYCLE #4						
6	7	8	9	10	11	12
13	14	15	16	17	18	19
MAR 31 - MAY 2						
20	21	22	23	24	25	26
27	28	29	30	1	2	3

October-2013

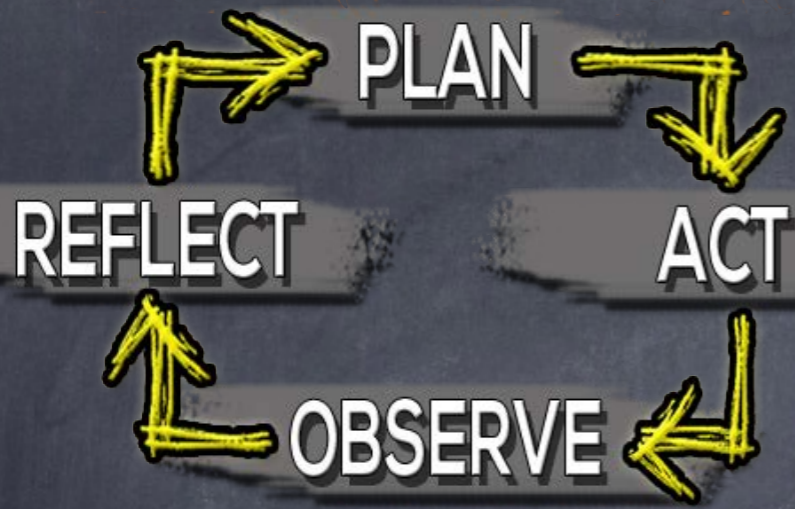
Su	Mo	Tu	We	Th	Fr	Sa
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

Cycle Timeline



- **Week 1** – Working Levels Based on Rubrics
- **Week 2** – Marker Student Evidence and implement specific change in practice
- **Weeks 3 & 4** – Continue change in practice
- **Week 5** – Working Levels Based on Rubrics
- **Week 6** – Collect Marker Student Evidence



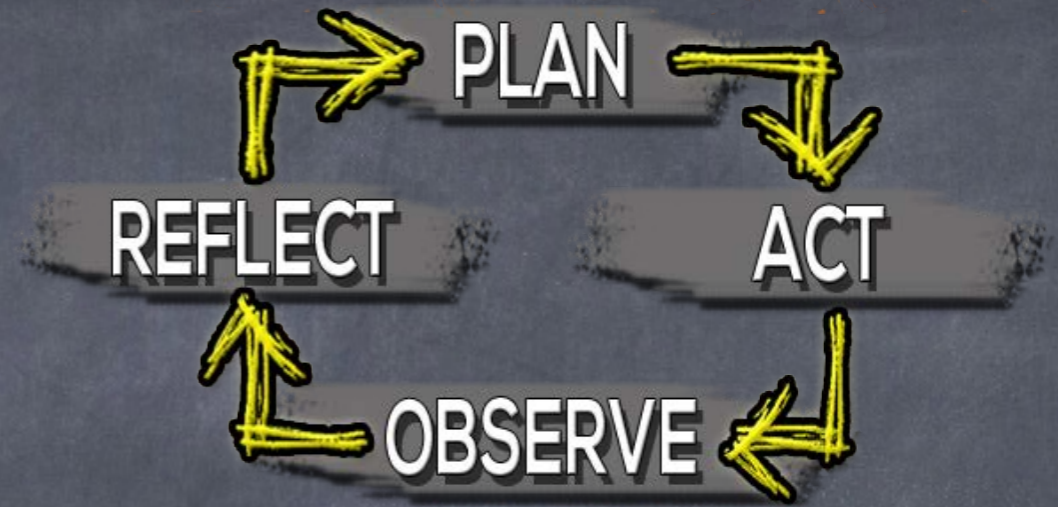


Specific Change in Practice

- a **new** idea or approach
- **modifying** something you have done previously
- Should be “**SMART**”
 - Specific, measurable, attainable, realistic, time-bound.



Data Submission



- Access the Data Submission form here:

<http://tapintoteenminds.com/myci/submit>

- Take some time to analyze and submit your data for cycle #3.
- If you have yet to submit data for a previous cycle, you may do so at this time.

Reflecting and Planning



Go to your team shared Google Drive Folder.

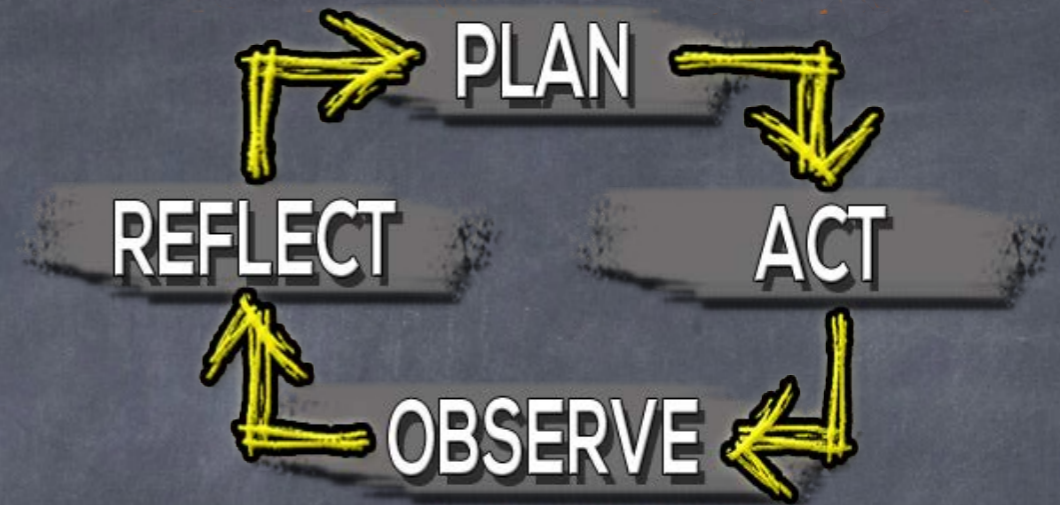
- Go to the **Session #5 Resources** folder
- open **Session 5 Team Prompts**

Engage in a team discussion using the prompts as a guide.

Document your reflections and plans in point form.



Visualizing Mathematics



PAYING ATTENTION TO **K-12**
ALGEBRAIC REASONING
Support Document for Paying Attention to Mathematics Education

Contents

- ◆ Paying Attention to Algebraic Reasoning
- ◆ Why Is Algebraic Reasoning Important?
- ◆ What Is Algebraic Reasoning?
- ◆ Algebraic Reasoning as Generalizing Arithmetic
- ◆ Algebraic Reasoning as Functional Thinking
- ◆ Actions to Develop Algebraic Reasoning
- ◆ Making Connections among Representations
- ◆ Algebraic Reasoning through Representation
- ◆ Algebraic Reasoning across Strands and Grades
- ◆ How Can We Promote Algebraic Reasoning?
- ◆ Being Responsive to Student Thinking
- ◆ References and Ministry Resources

support every child
reach every student

Ontario

PAYING ATTENTION TO **K-12**
PROPORTIONAL REASONING
Support Document for Paying Attention to Mathematical Education

Contents

- ◆ Paying Attention to Proportional Reasoning
- ◆ What Is Proportional Reasoning?
- ◆ Why Is It Important?
- ◆ Exploring Some Key Concepts
- ◆ Is It or Isn't It Proportional?
- ◆ How Can We Get Started?
- ◆ Being Responsive to Student Thinking
- ◆ References

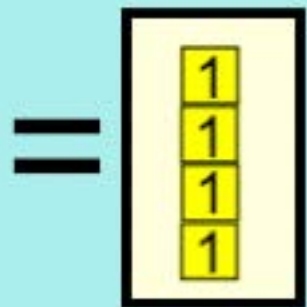
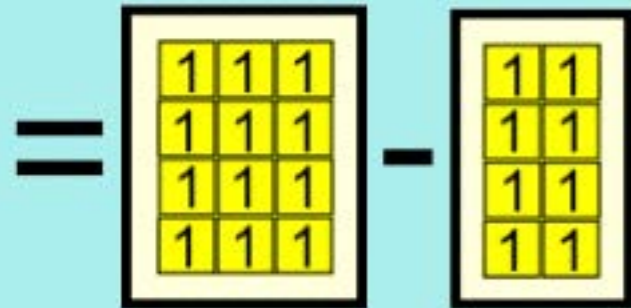
reach every student

Ontario



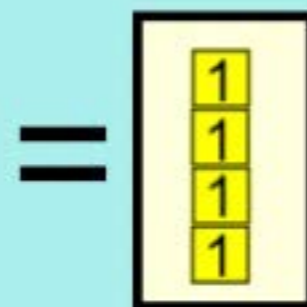
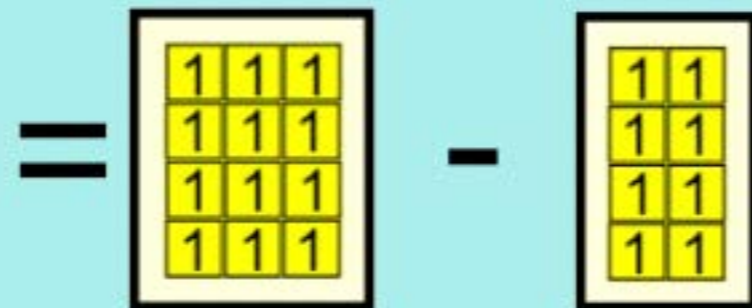
Making Basic Math Visual

$$12 - 8$$



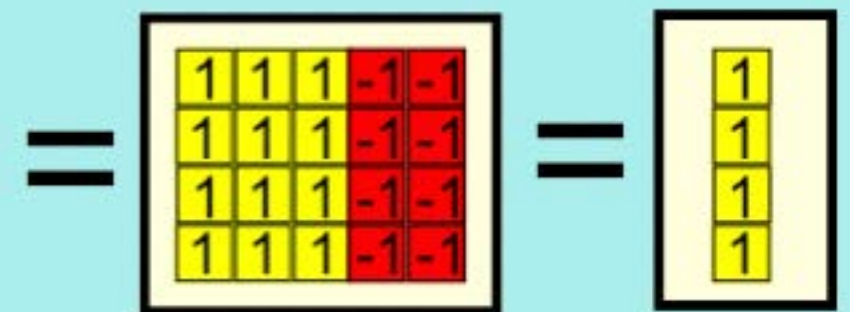
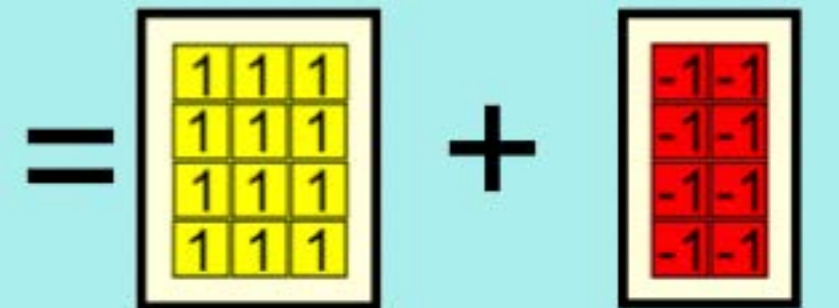
$$= 4$$

$$12 - (+8)$$



$$= 4$$

$$12 + (-8)$$

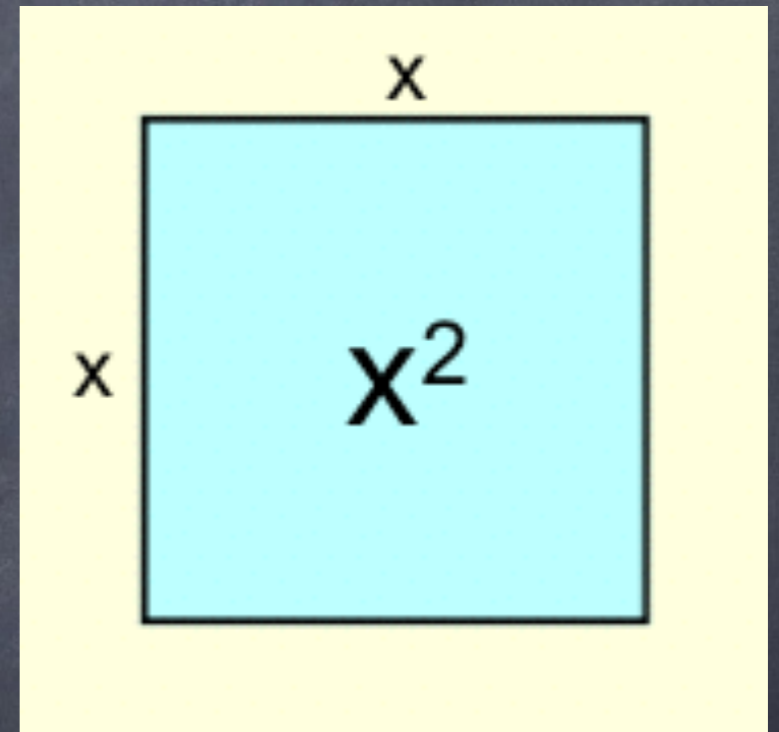
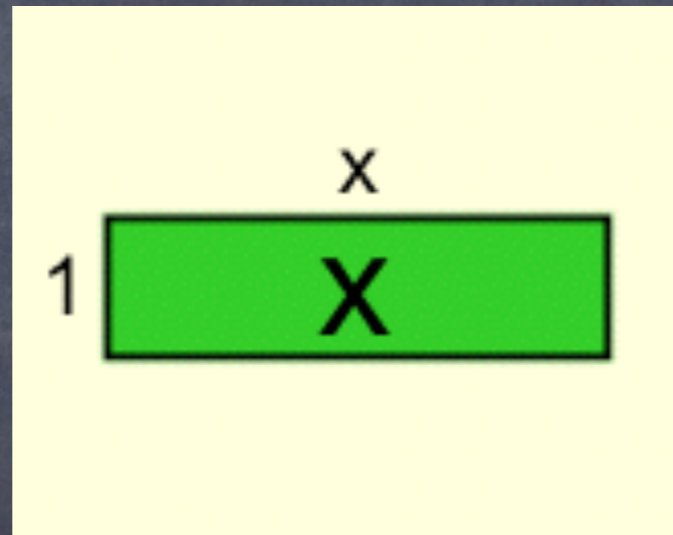


$$= 4$$



Making Basic Math Visual

Multiplication Means Area

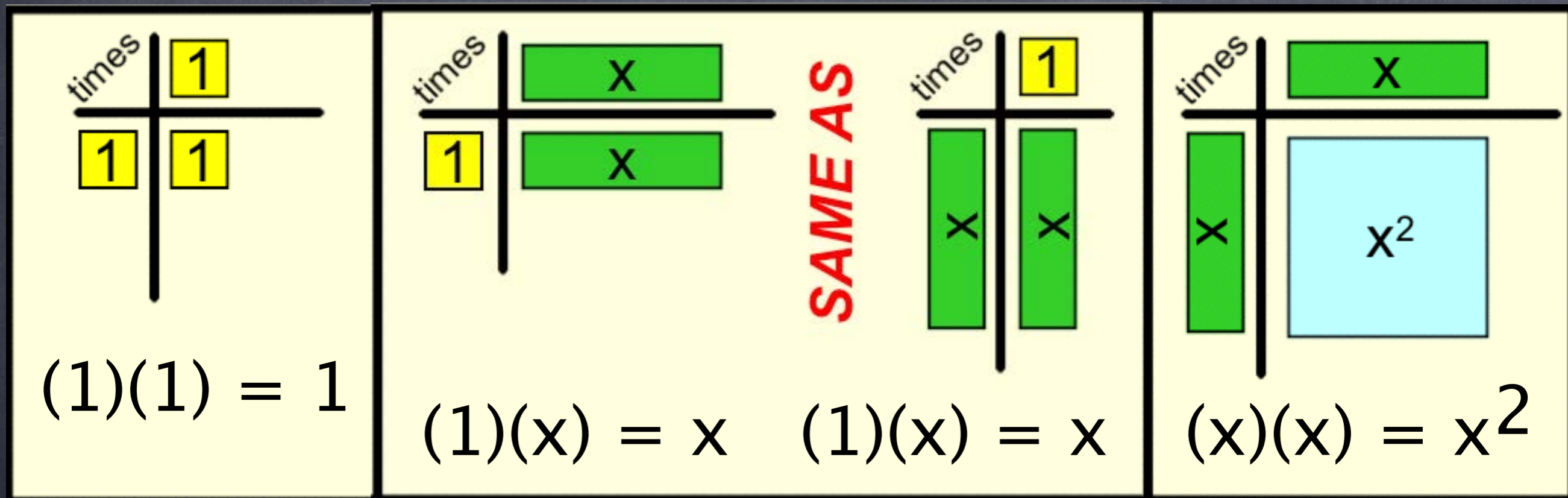


$$A = \text{length} \times \text{width}$$



Making Basic Math Visual

Multiplication Means Area



A = length x width



Making Algebra Visual

Simplify:

$$3x + 4 - 2y + 2x - 2$$

$$= 5x - 2y + 2$$



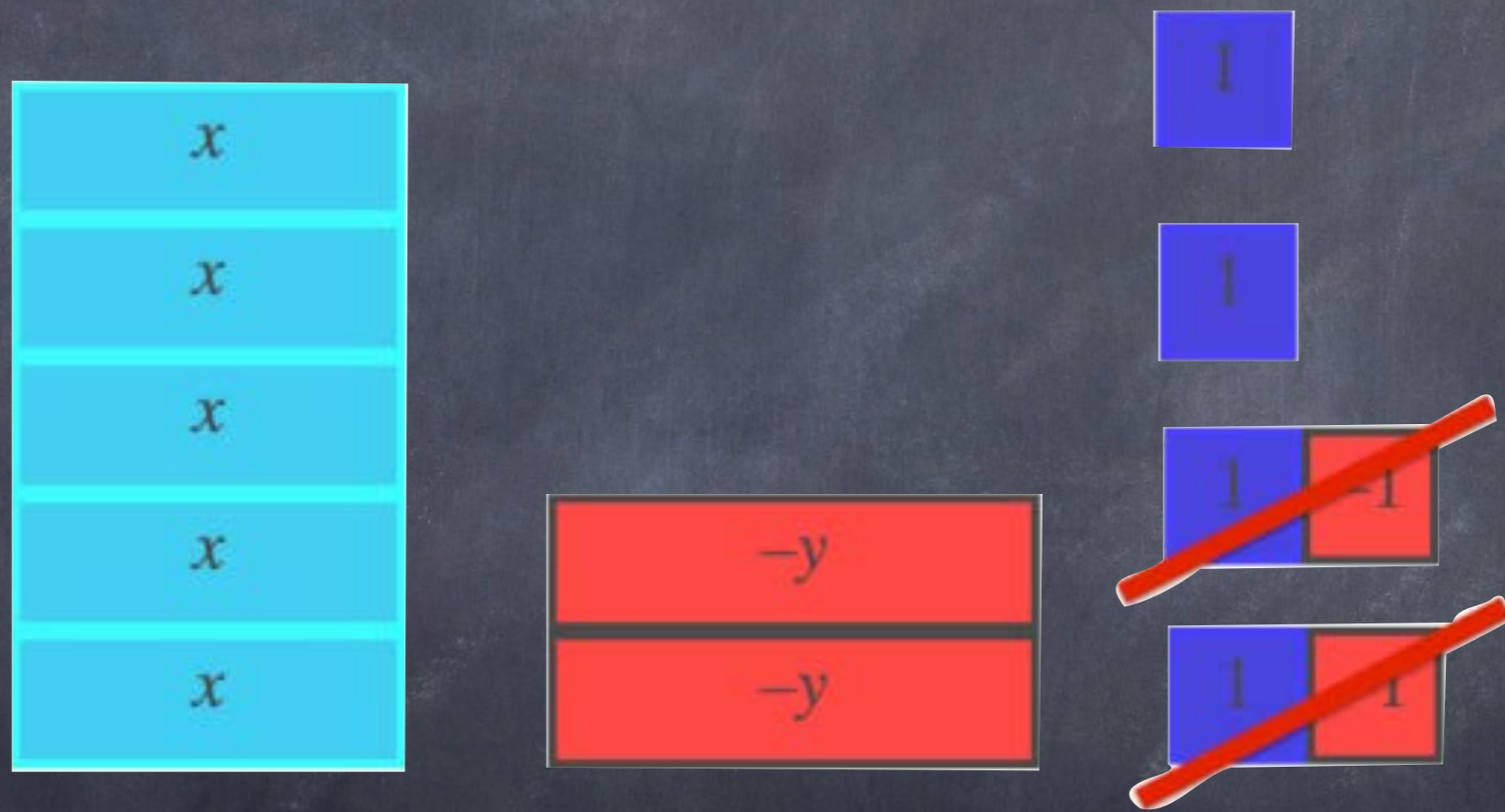
Making Algebra Visual

$$3x + 4 - 2y + 2x - 2$$



Making Algebra Visual

$$3x + 2x - 2y + 4 - 2$$



$$= 5x - 2y + 2$$

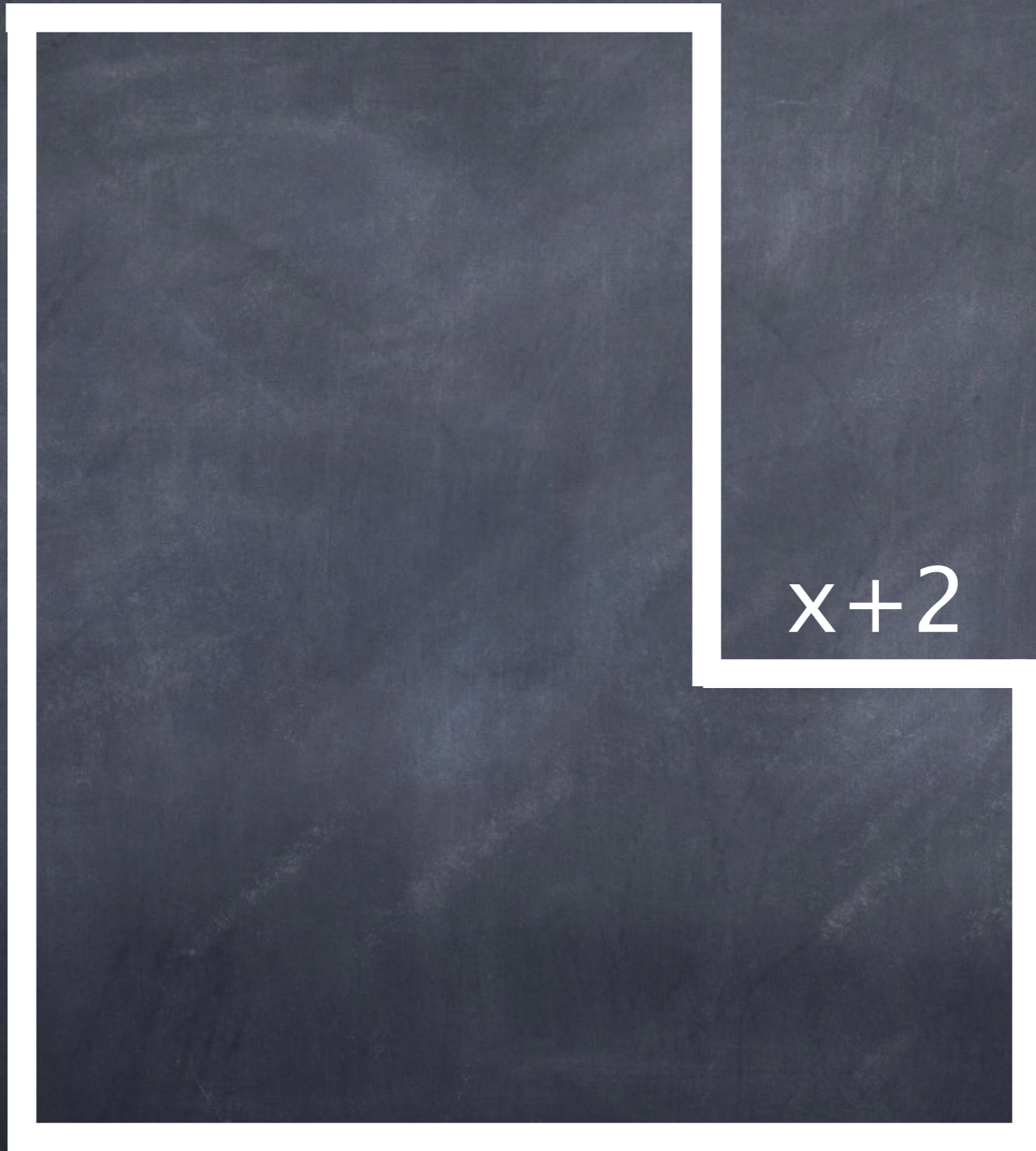


$$3x$$

$$5x$$

$$x+2$$

$$2x$$



$5x$

$3x$

$$\begin{aligned} \text{Area} &= \text{length} \times \text{width} \\ &= (3x)(5x) \end{aligned}$$

$x+2$

$$A = (x+2)(2x)$$

$2x$

$$A = (3x)(5x) + 2x(x+2)$$

$$= 15x^2 + 2x^2 + 4x$$

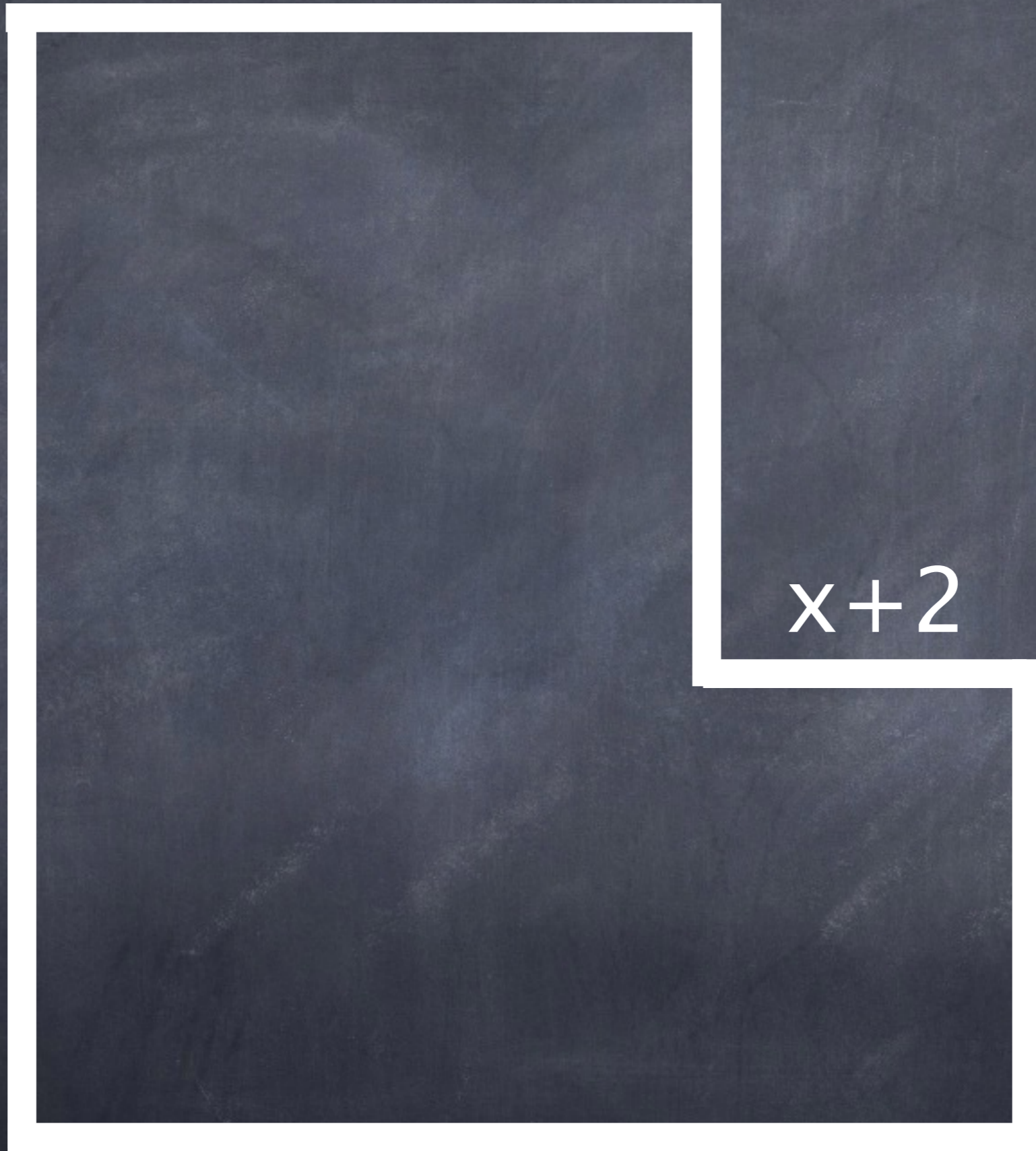
$$= 17x^2 + 4x$$

$$3x$$

$$5x$$

$$x+2$$

$$2x$$



$3x$

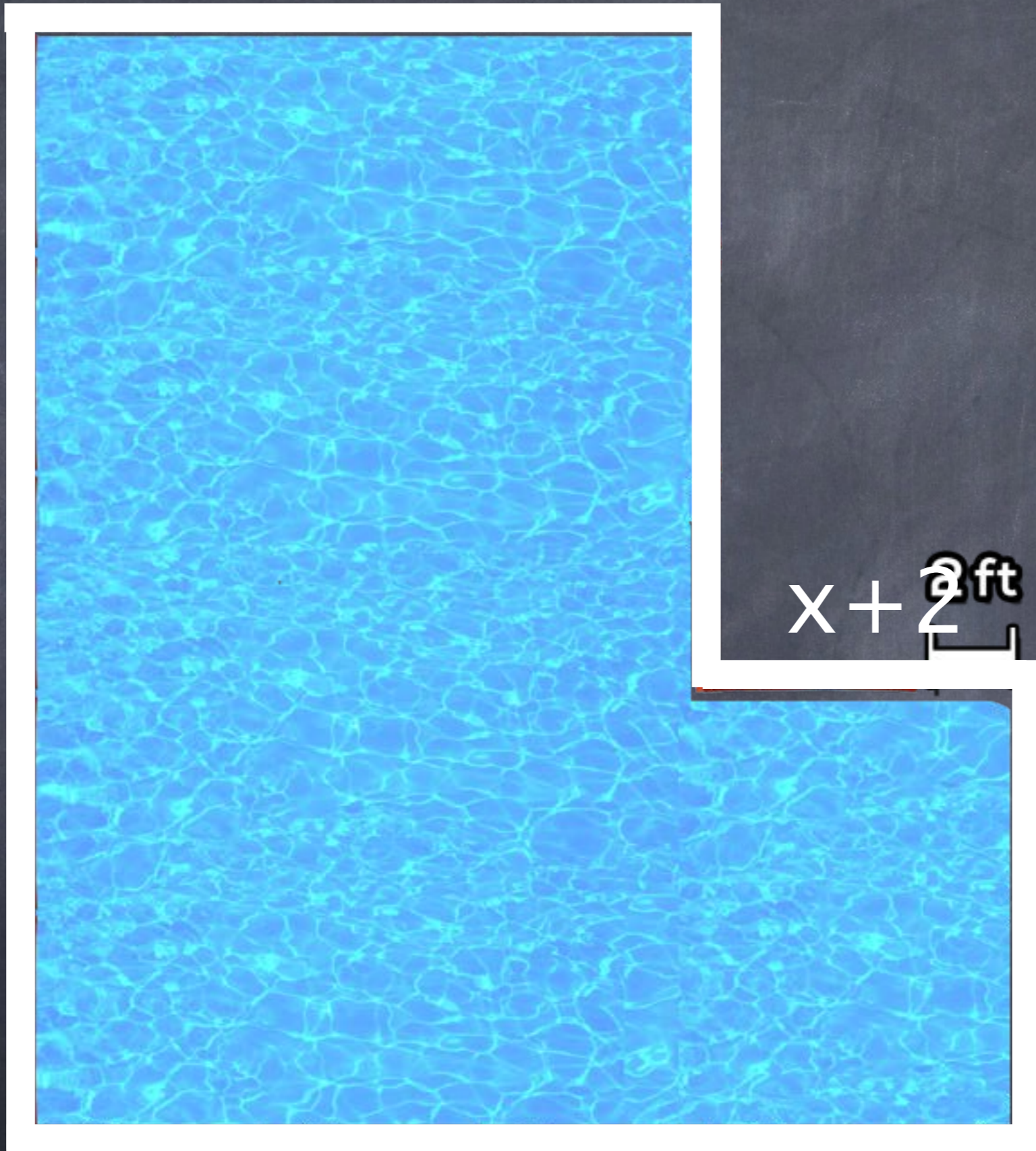
$5x$

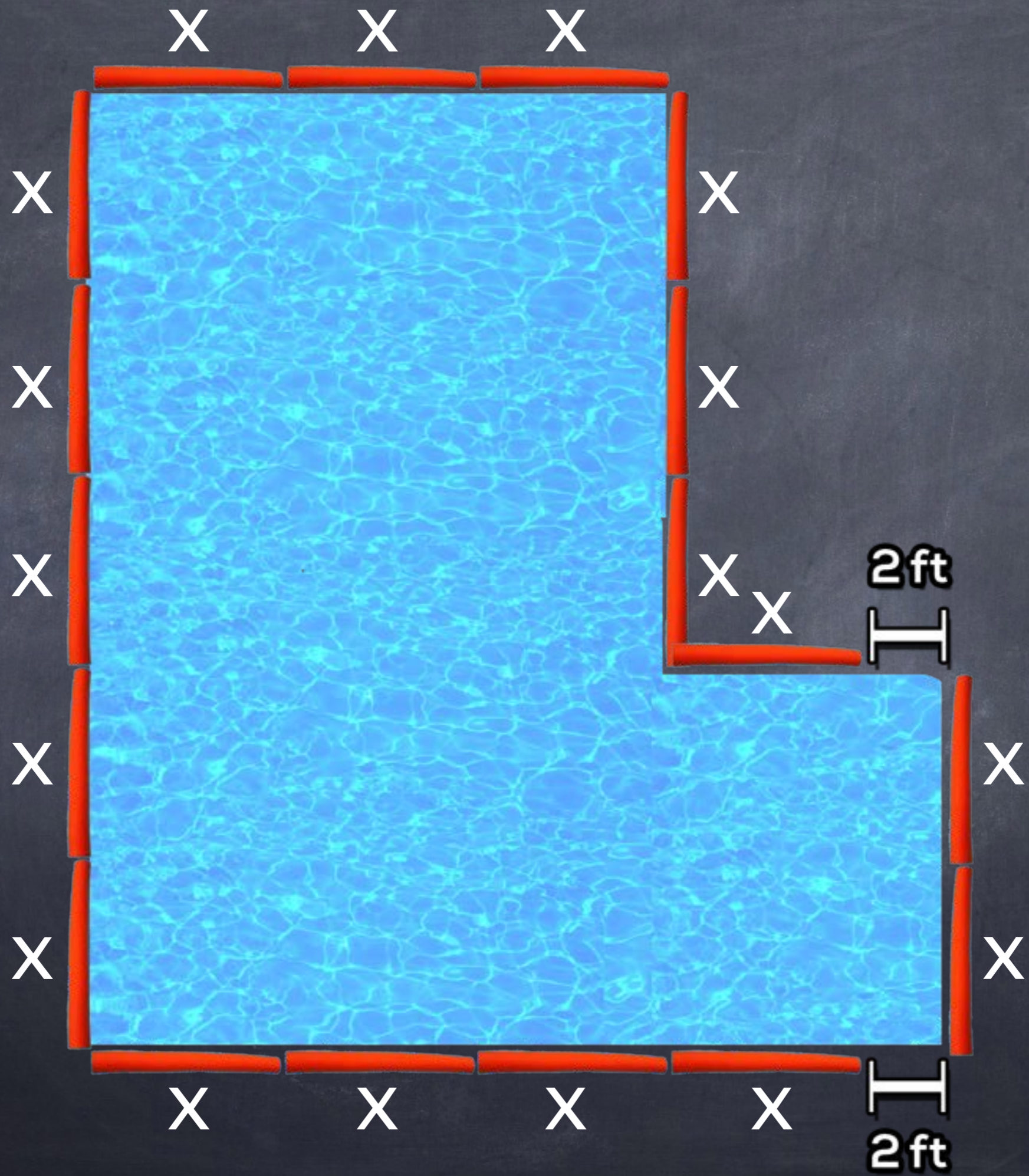
$x + 2$

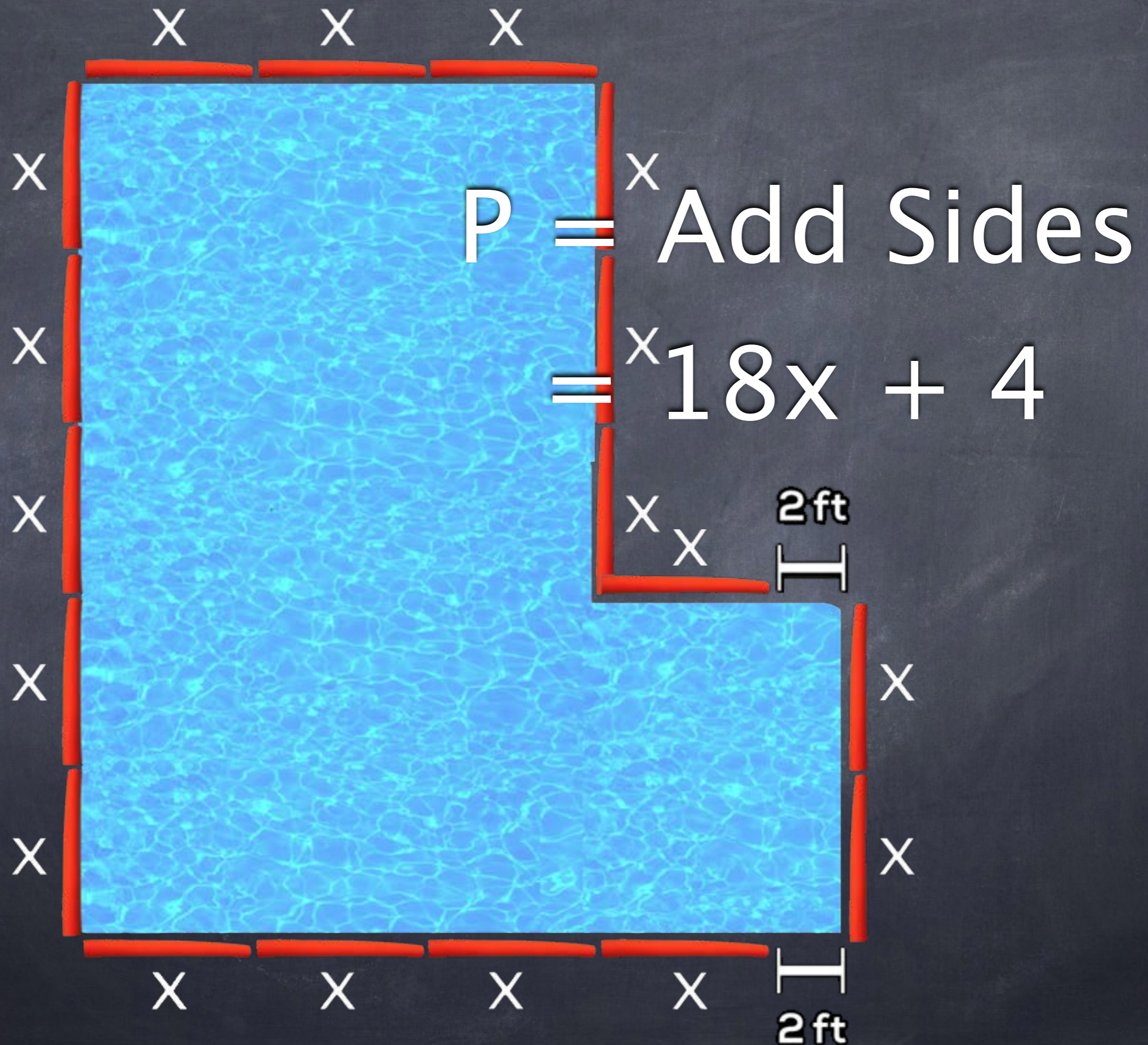
2 ft

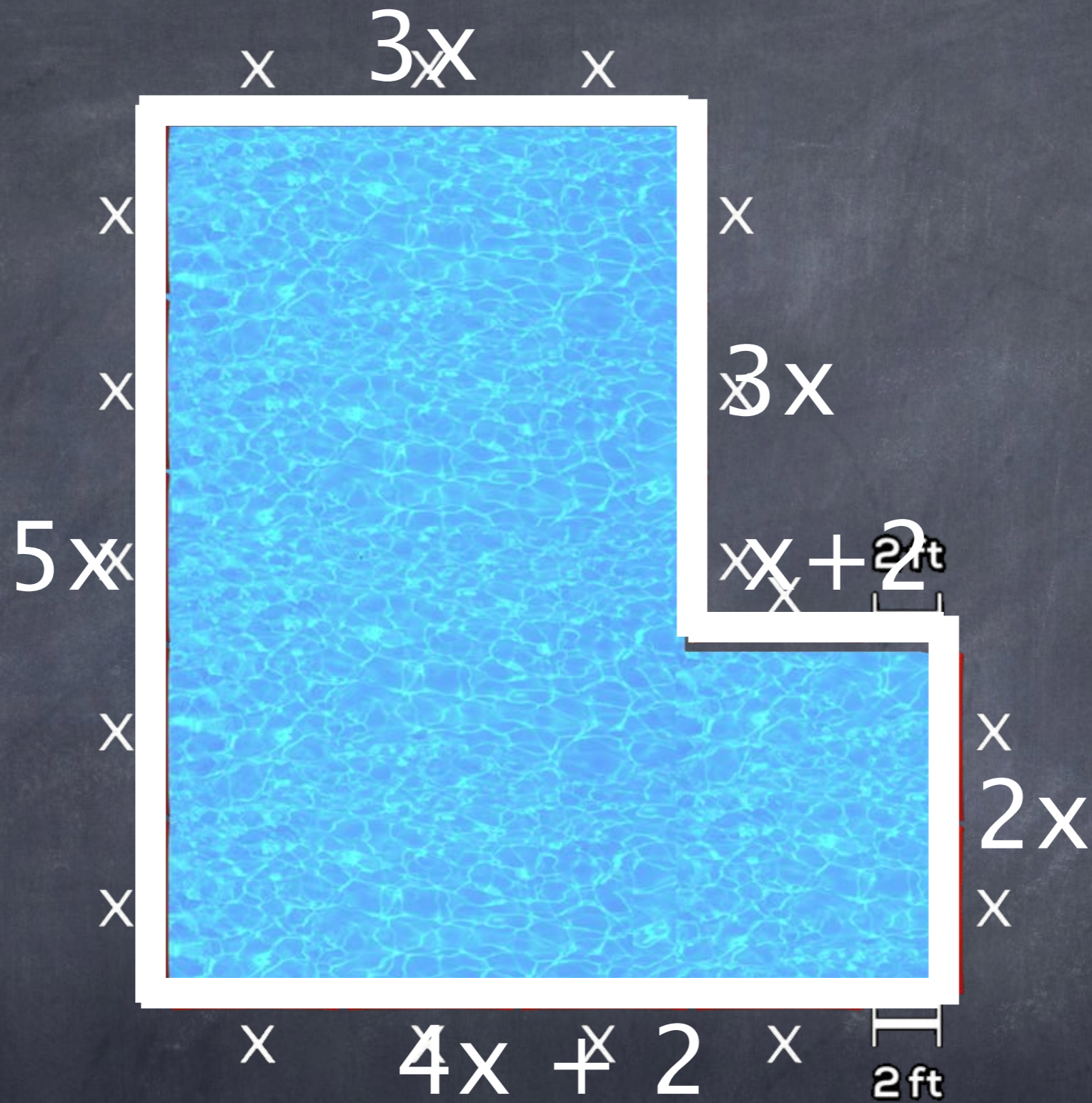
$2x$

2 ft



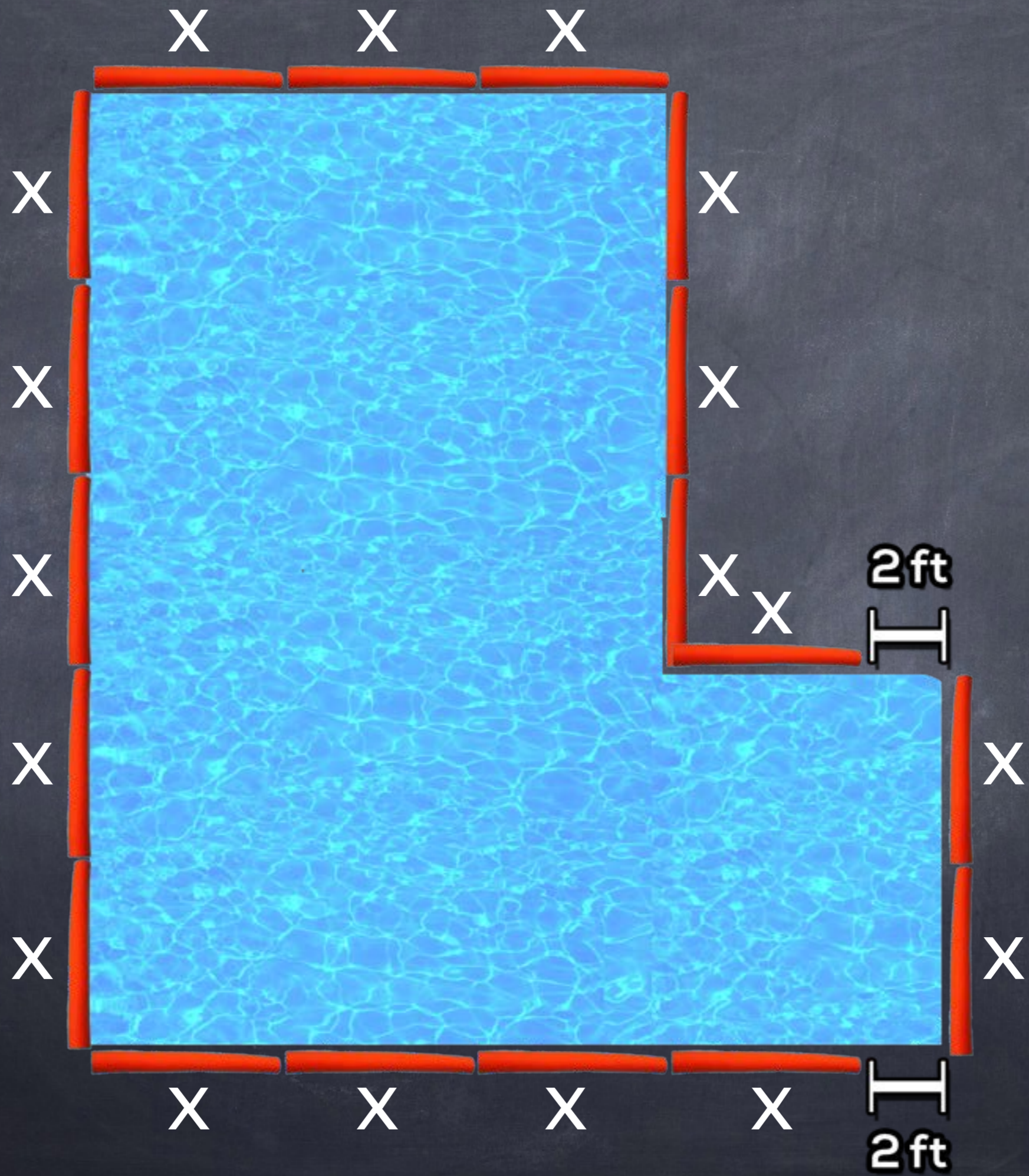


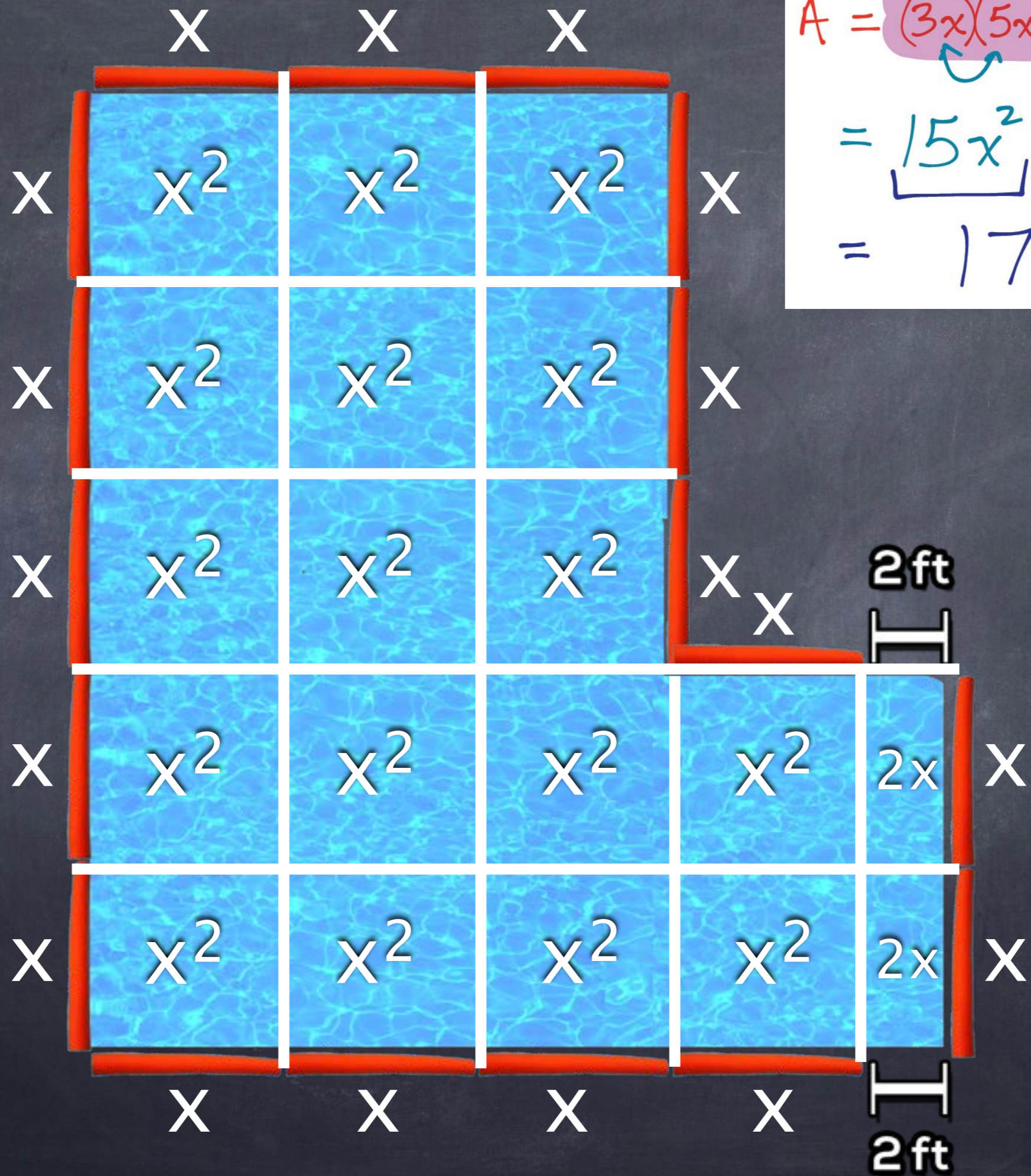




$$P = 3x + 3x + x + 2 + 2x + 4x + 2 + 5x$$

$$= 18x + 4$$





$$\begin{aligned}
 A &= (3x)(5x) + 2x(x+2) \\
 &= 15x^2 + 2x^2 + 4x \\
 &= 17x^2 + 4x
 \end{aligned}$$

Exit Survey

- Slides from Session #5 Also Available



<http://tapintoteenminds.com/myci/session5/>

- All Team Members Should Complete the Exit Survey

Need Assistance?



Justin Levack
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Justin.Levack@publicboard.ca
[@JustinLevack](https://twitter.com/JustinLevack)

Justin
Kyle

Two white, chalk-style arrows. One points from the word 'Justin' to the portrait of Justin Levack on the left. The other points from the word 'Kyle' to the portrait of Kyle Pearce on the right.

Kyle Pearce
MYCI Project Lead
Kyle.Pearce@publicboard.ca
[@MathletePearce](https://twitter.com/MathletePearce)