

# Math 1, 2, 3: Understanding Today's Math

**HISD** | Family and Community Engagement  
EMPOWERING FAMILIES. ADVANCING LEARNING.



# Norms

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1. Stay engaged
2. Mute your microphone
3. Refrain from mentioning sensitive student and staff information
4. Write your comments or questions to the speakers –at any time- in the public chat space

# Expected Outcomes

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Feel comfortable with math



Identify your knowledge in math



Helping your child succeed in math



Be open for new ways to understand math

# Activity: Ice Breaker

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Look at the following equation and try to find at least 2 ways to solve it:

$$\begin{array}{r} 45 \\ +37 \\ \hline \end{array}$$

# Research Shows

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When students are under time pressure, they become stressed and their memory becomes blocked and are unable to access math facts that they know



Developing critical-thinking skills predicts:

- Math and Reading Leaders
- Later School Success
- High school graduates
- Improves the quality of children's early mathematics performance

# Feel Comfortable With Math

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How do you feel about math?

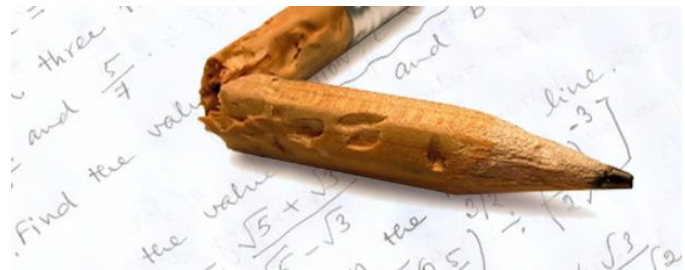


# Feel Comfortable With Math

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What can you do to feel comfortable with math?

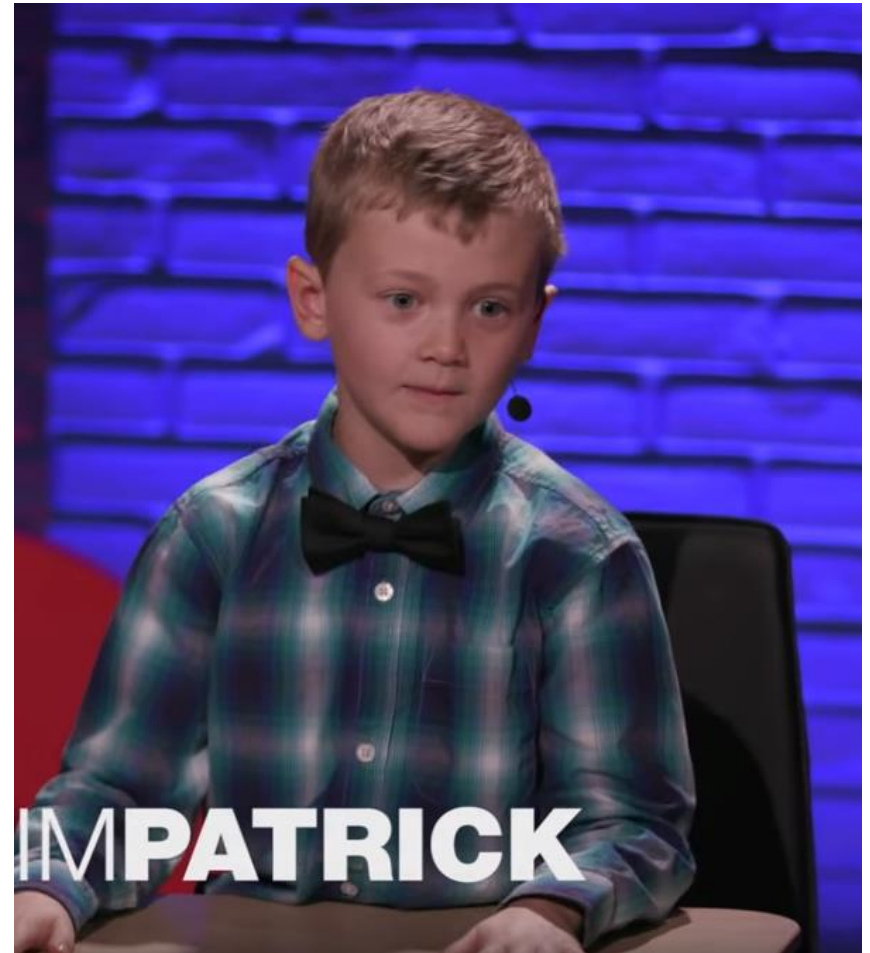
- Recognize your math anxiety
- Talk about math
- **Benefits for your child**
  - Increases confidence and achievement
  - Sign up for advanced placement classes



# Identify Your Knowledge in Math

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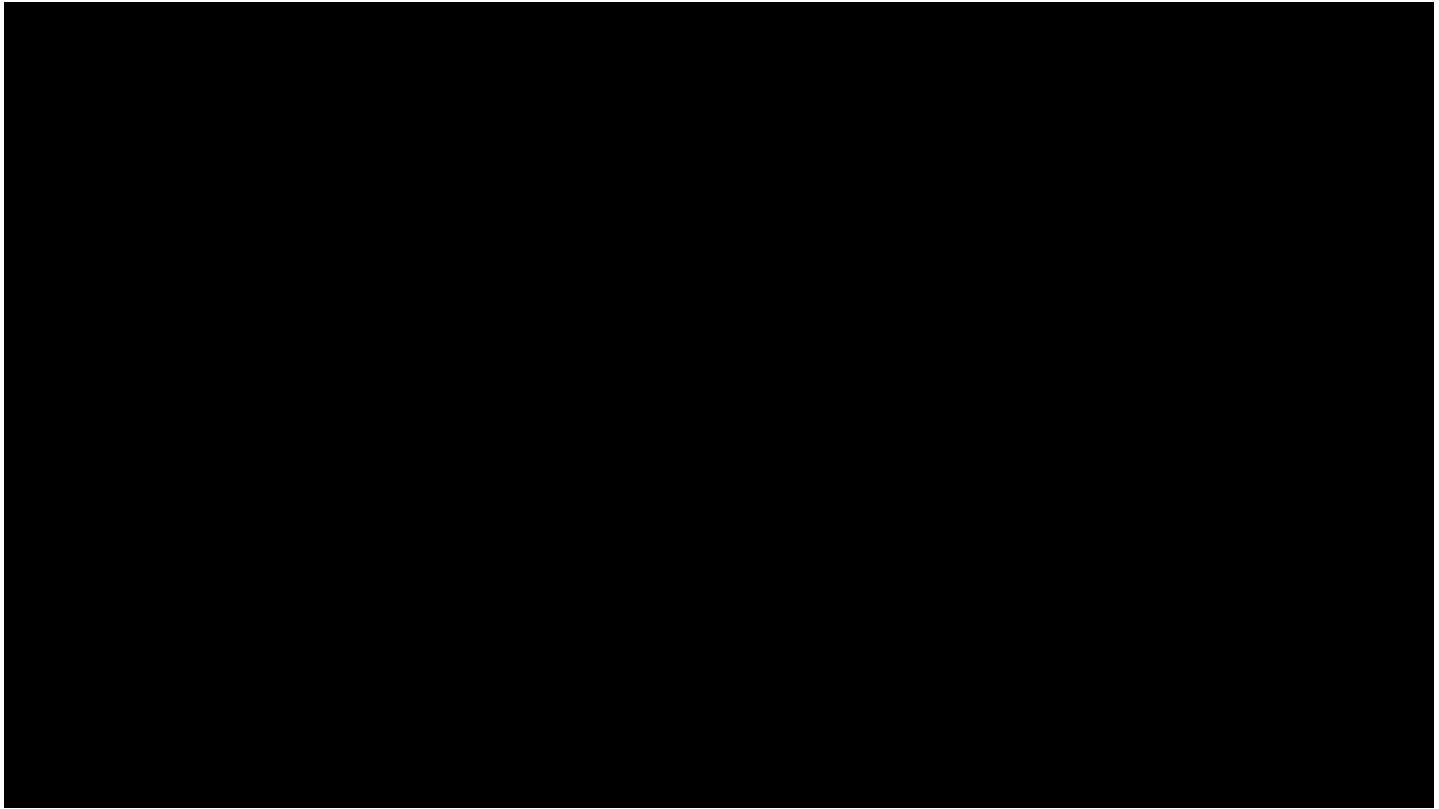
- Math is everywhere
- We use it every day
- Use daily activities that involve math:
  - Time
  - Money
  - Cooking
  - Driving
  - Temperature





# Jim Patrick Video

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# Activity: Everyday Math

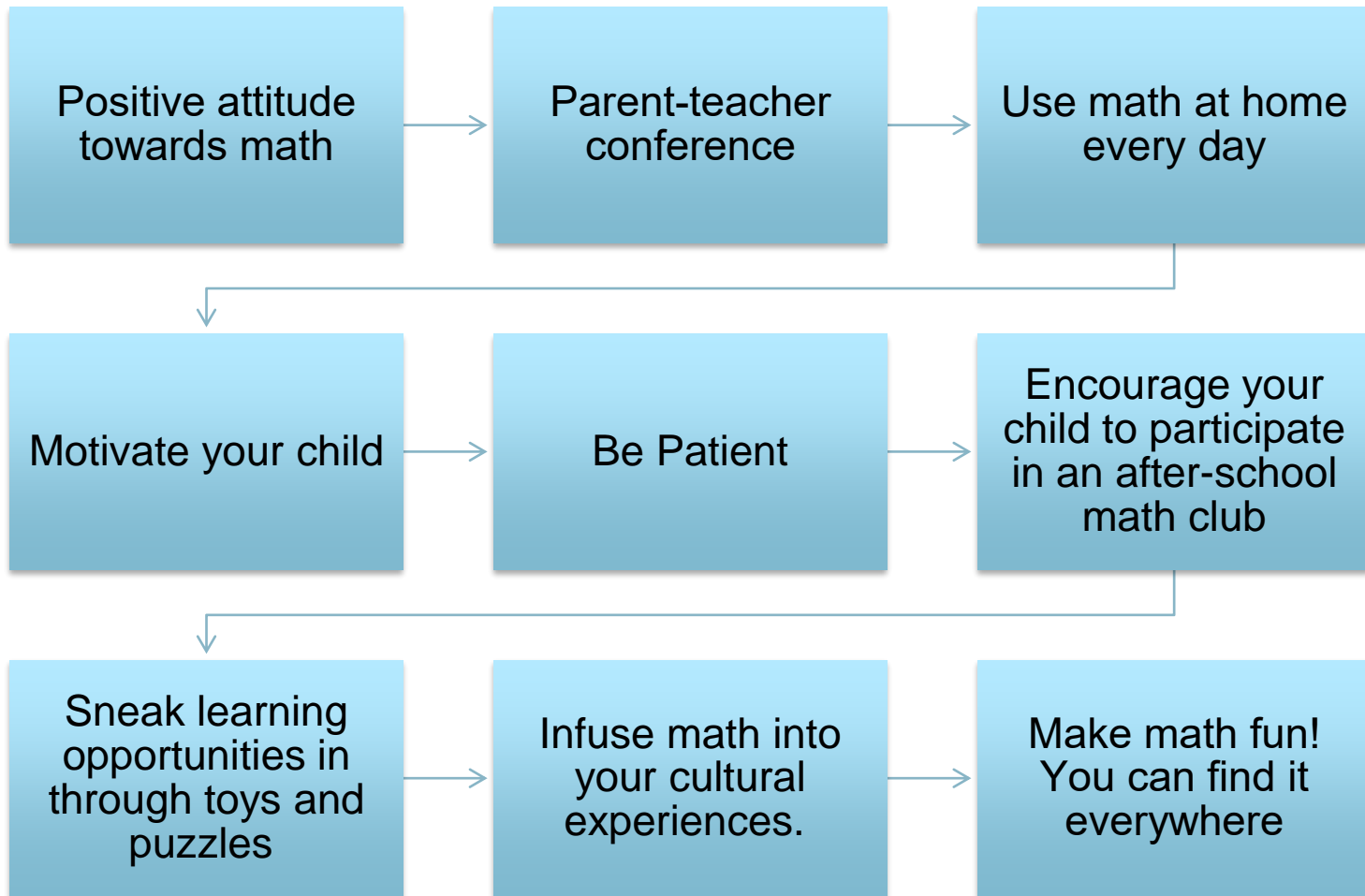
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You are at a restaurant for lunch with your family. Your server brings the check for \$50.00 and you want to calculate 20% for the tip.

- What would you do to calculate the tip?
- How much would the tip be?

# Helping Your Child Succeed in Math

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# Helping Your Child's Success with Math

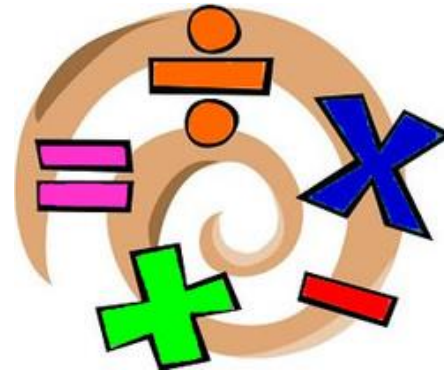
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## Number Sense

- The foundation for all higher-level mathematics
- Students using number sense are more likely to have higher academic performance
- Enables important brain connections

## Memorization

- Students show a lower academic performance compared to those who learn through strategies



# Be Open for New Ways to Solve Math

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- True or False:
  - My child is learning the same way I did.

**False**

- Solve in 2 different ways:  $67 \times 52$

$$\begin{array}{r} 67 \\ \times 52 \\ \hline 134 \\ + 3350 \\ \hline 3,484 \end{array}$$

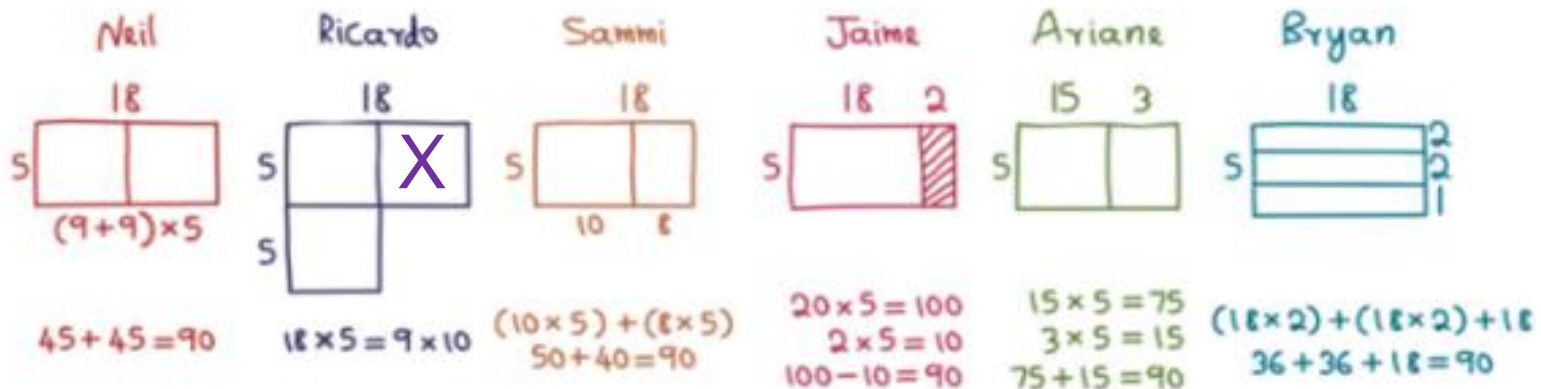
60	7
3,000	350
120	14

$$\begin{array}{r} 3,000 \\ + 350 \\ \hline 120 \\ \hline 14 \\ \hline 3,484 \end{array}$$

# New Ways to Solve Math

Our kiddos need to think different ways to solve a problem

Work out  $18 \times 5$  and show a visual solution.



from Jo Boaler. Mathematical Mindsets (2016)

# Review

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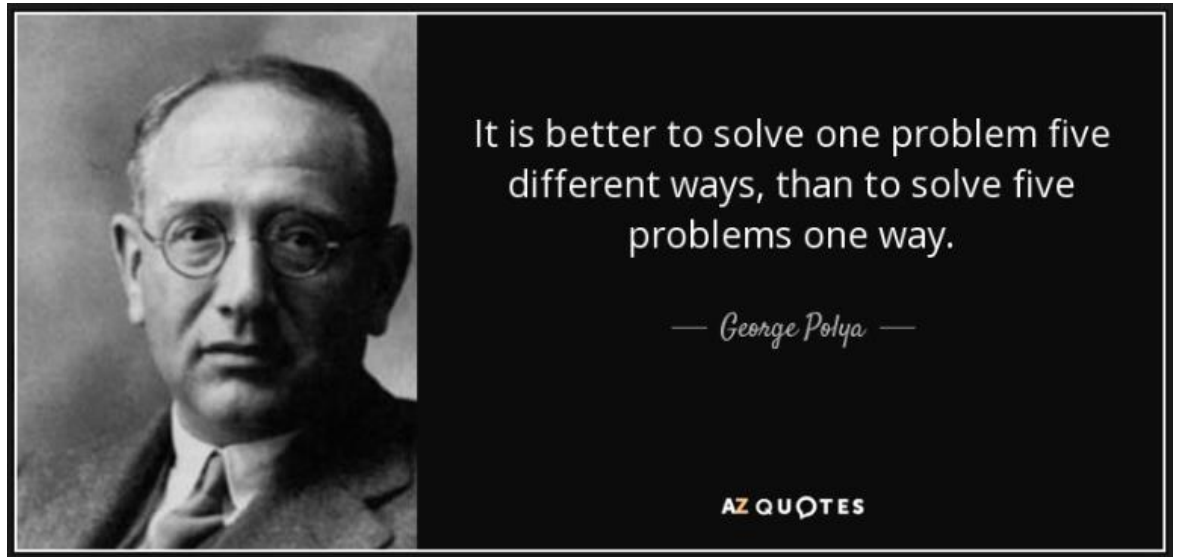


# Exit Quote

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## George Polya's “Problem Solving Technique”:

1. Understand the problem
2. Make a plan
3. Carry out the plan
4. Check your work





# Resources

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- <https://www.usatoday.com/story/opinion/2018/12/07/parents-math-anxiety-affects-children-research-app-can-help-column/2201416002/>
- <http://med.stanford.edu/news/all-news/2018/01/positive-attitude-toward-math-predicts-math-achievement-in-kids.html>
- Inter-American Development Bank (IDB) <https://vimeo.com/115601045>
- Banco Interamericano de Desarrollo (BID) <https://vimeo.com/115601272>
- <https://www.imaginelearning.com/blog/2017/04/math-real-life-examples> by Ruth Christensen
- <https://www.imaginelearning.com/blog/2017/05/build-math-motivated-students> by Megan Clark and Ruth Christensen
- Joe Boaler, Mathematical Mindsets 2016
- Overdeck, L. (2017). Workbooks – Work = Truly Fun Math. Retrieved October 2, 2017 from <http://www.pbs.org/parents/education/math/math-tips-for-parents/truly-fun-math/>.
- Schroeter, E. (2017). Part 1: The importance of spatial reasoning and geometry in kindergarten. Retrieved October 3, 2017 from <https://thelearningexchange.ca/importance-spatial-reasoning-geometry-kindergarten/>.
- <http://www.amathsdictionaryforkids.com/>
- <https://www.pbs.org/parents/learn-grow/all-ages/math>
- 50 Simple Things You Can Do to Raise a Child Who Loves Math **by Kathy A. Zahler**
- Math Power: How to Help Your Child Love Math, Even if You Don't **by Patricia Clark Kenschaft**

# Contact Us

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# Thank You

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