

YPS Parent Academy

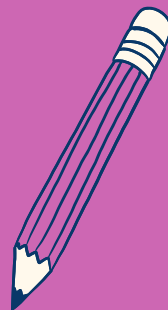
Are you **G.A.M.E.** in Math?

Session 1: 1/28/23

Upper Elementary



$$X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



$$a^2 + b^2 = c^2$$

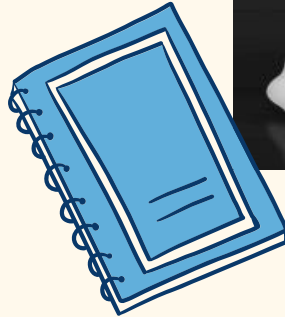
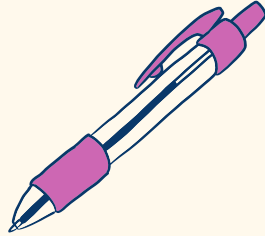


Introductions!

Who am I?

Please share:

- Name
- Child's School
- Child's Grade Level
- Your favorite topic in math (why is it your favorite?)



Our Parent Workshops!

Come join us for a series of workshops for parents of students in **grades K-8**, designed to teach you:

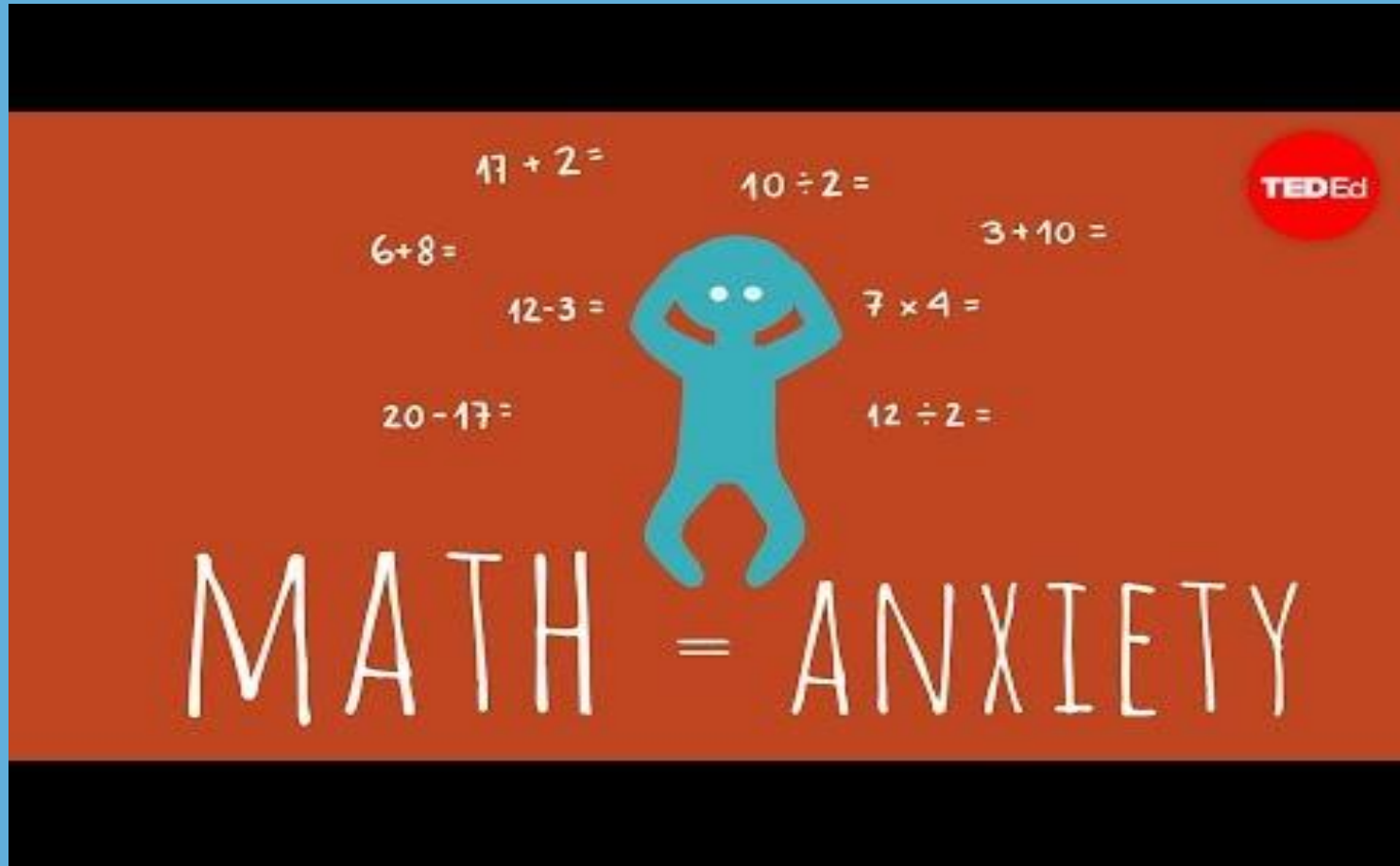
- math concepts that your child is learning in school
- math tools you can use to assist your child in better understanding the math concepts
- games and activities you can use with your child to reinforce what they are learning in school



When

- **9:30-11:30AM** on select Saturdays
 - 1/28/23
 - 2/11/23
 - 3/4/23
 - 3/18/23
 - 4/15/23
 - 4/29/23
 - 5/6/23

Why do people get so anxious about math?



Why do people get so anxious about math?

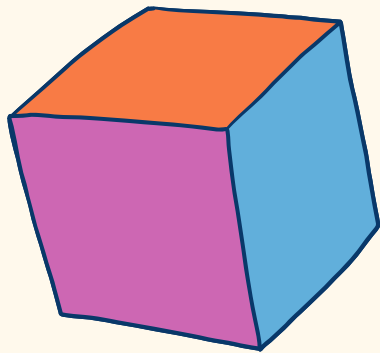
Time to Reflect

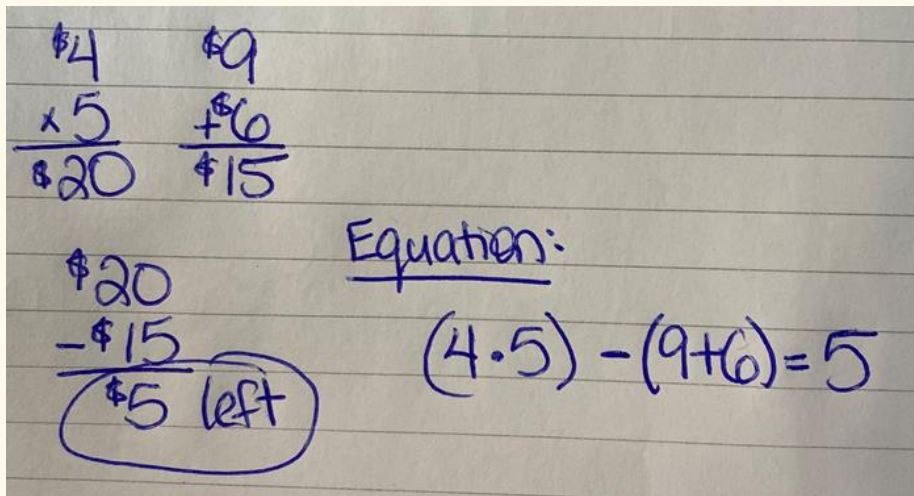
- Have you or your child displayed feelings of "math anxiety"? Why do you think that is?
- What words and tone do you usually use when you speak to your child about math?
- What can you do/try if your child is experiencing "math anxiety" and underperforming because of it?

The 4 Operations: Multi-Step Problems

Garrett is paid \$4 for each hour he babysits. Mrs. Becker pays him for 5 hours of babysitting. On the way home, Garrett spends \$9 on a book and \$6 on a puzzle. Write an equation to find how much money Garrett has left from the money Mrs. Becker pays him.

1. What would you do to solve this problem?
2. What might your child struggle with?





Handwritten math work on lined paper:

$$\begin{array}{r} \$4 \\ \times 5 \\ \hline \$20 \end{array}$$
$$\begin{array}{r} \$9 \\ + \$6 \\ \hline \$15 \end{array}$$
$$\begin{array}{r} \$20 \\ - \$15 \\ \hline \$5 \text{ left} \end{array}$$

Equation:

$$(4 \cdot 5) - (9 + 6) = 5$$



What strategies can we use?



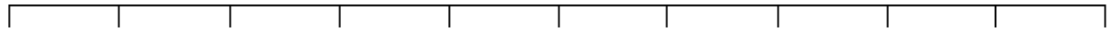
**Play
Money**



Counters

**(Manipulative
Take-Home kits
have been ordered
and will be
distributed in a
future session)**

A)



Open Number Lines

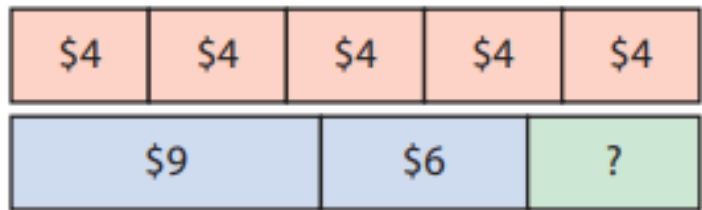


What strategies can we use?

NUMBERS 1-100

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

100 Chart



A Bar Model

Let b equal the amount Mrs. Becker pays Garrett.

$$b = 5 \times 4$$

He spends \$9 on a book and \$6 on a puzzle, so represent the amount he spends with the **expression** $9 + 6$.

Let g be the amount Garrett has left after he spends money on a book and a puzzle.

$$g = b - (9 + 6)$$

Identifying variables



Apply different strategies!

Jason has 20 pounds of apples. He makes 2 batches of applesauce that use 4 pounds each, one batch of apple butter that uses 6 pounds, and he uses 3 pounds to make juice. After all of this cooking, how many pounds of apples will Jason have left?

Solve this problem using at least 3 different strategies that we discussed.

1. Which strategy is your child more likely to use?
2. What connections did you notice among the different strategies?
3. Why is it important for students to learn multiple strategies?



24 Game



**Let's
Play!**



**Instructions for
SINGLE DIGITS and
DOUBLE DIGITS
24® Game Editions**

SINGLE DIGITS 96 cards - #33976 | 48 cards - #33956
DOUBLE DIGITS 96 cards - #39976 | 48 cards - #39956

All 24® game cards are printed on both sides, each with a different set of four numbers. **SINGLE DIGITS** cards have numbers 1 through 9, **DOUBLE DIGITS** cards have numbers 1 through 24.

Cards are worth 1, 2 or 3 points, rated by difficulty. Look at the corner of a card to tell if it's worth 1 point (1 white dot), 2 points (2 red dots) or 3 points (3 yellow dots). All 9's are "filled in" in red.

Object is to make 24 with all four numbers on a card. You can add, subtract, multiply and divide. You must use all four numbers, but use each only once.

EXAMPLES



$$\begin{aligned} 4 + 8 &= 12 \\ 7 - 5 &= 2 \\ 2 \times 12 &= 24 \end{aligned}$$



$$\begin{aligned} 22 - 1 &= 21 \\ 21 + 3 &= 24 \end{aligned}$$



$$\begin{aligned} 5 \times 6 &= 30 \\ 30 + 2 &= 32 \\ 32 - 9 &= 23 \end{aligned}$$

INCORRECT SOLUTION EXAMPLES



$2 + 2 = 4$
 $1 \times 3 = 3$
 $4 + 4 = 8$
 $3 \times 8 = 24$

Number 2 was used twice. Use each number only once.

$$\begin{aligned} 2 + 4 &= 6 \\ 6 + 6 &= 12 \\ 8 \times 4 &= 32 \\ 12 + 12 &= 24 \end{aligned}$$

Number 6 was used twice. You can use the result of an operation only once, as well.

$$\begin{aligned} 3 \times 4 &= 12 \\ 12 \times 2 &= 24 \end{aligned}$$

Only 3 numbers were used. You must use all 4 numbers.

HOW TO PLAY WITH TWO OR MORE PLAYERS

1. Any number of players can play. Count off 12 to 24 cards from the deck (use 1-point cards for an easy start). Stack cards in center of table. All players are playing at the same time, for the top card.

2. Win a card by being the first to touch it and give a correct solution. Winner takes the card, and the next card is in play. **For tournament-style play, you must announce the pattern (last step of your solution; i.e. "3 times 8") within three seconds of touching the card. The complete solution—all three steps—must be completed within 15 seconds. You cannot change the pattern once given, and must complete your solution using that pattern.**

If you make a false claim by touching the card but can't quickly give a solution, the card is returned to the deck to be played later.

When players can't find a solution: Every card has at least one solution...some have more. If a card stumps all players, that card can be put aside.

3. The winner is the player with the most points after all cards are claimed. Add up the point value of your cards. (Example: If you had four 1 point and three 2 point cards, your score is 10 points.) Begin with 1- and 2-point cards. Add 3-point cards as you improve.

**Take it home and
play with your
kids!**



Please give us feedback!

