4th Grade
Math Summer Work for the 2018-19 School Year

- Keep a log of the Math games you play
- Play two games in June, two games in July, and one game in August
- Play with an adult and they must verify with a signature
- Try three different games

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Math game choices:

Multiplication War!

Materials: a deck of cards, a timer

How to play:

1. Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out. Each player keeps his cards in a stack. Assign picture cards, such as jacks, queens, and kings, a value of 10. Give aces a value of either 11 or 1.
2. Demonstrate to your child how to play the game: Each player turns two cards face up, reads the number sentence and supplies the answer. For example, if your child draws a 5 and a 4, he says 5 x 4 = 20. If you draw a 7 and an 8, then your number sentence is 7 x 8 = 56. Because your product is larger, you win the four cards and you put them at the bottom of your pile.
3. If each of you has a number sentence with the same product, then it's war! Each player puts four cards face down and turns up two of them. The player with the largest product wins the eight cards.
4. Set up the timer and play the game for 10 to 15 minutes. When the timer goes off, each player counts his cards. The player with the most cards wins. If one player runs out of cards before the time is up, then the other player wins.

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A Mathematical Card Trick!

Materials: Deck of playing cards, pencil and scratch paper (for computation)

What You Do:

1. Find someone to trick!
2. Ask that person to pick a card from the deck and keep it secret.
3. Have him double the face value of the card (aces = 1, jacks = 11, queens = 12, and kings = 13).
4. Ask him to add 3 to their result.

5. Ask him to multiply this by 5.
6. Have them add 1 if his card is a club, 2 if it is a diamond, 3 if it is a heart, and 4 if it is a spade.
7. Ask them to tell you their number.
8. To predict the card, subtract 15 from the final total. The right digit of the answer represents the suit of the card (1 = club, 2 = diamond, 3 = heart, 4 = spade). The left digit or digits is the number value of the card. For example, if their result is 83, the card is the 8 of hearts. If the result is 134, the card is the king of spades.

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Tic-Tac-Toe Multiplication!

Materials: 9 sheets of white paper, a marker, two players

How to play:

1. Let your child draw a standard, nine square tic-tac-toe grid on each of the nine sheets of white paper with the black marker.
2. Then, help your child place each of the nine sheets of paper in a 3 x 3 square, with the tic tac toe grids facing up.
3. Next, take over duties and write a random multiplication equation in each of the 81 spaces.
4. Explain to the players that the rules are exactly like those of standard tic-tac-toe.
5. Players take turns trying to solve the various problems in the grids.
6. When players successfully solve a problem, they put either an X or an O in the square.
7. Whoever gets tic-tac-toe on a given grid can turn the sheet over and mark it with a giant X or O.
8. To win, a player must get three sheets in a row.

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Subtraction War!
Materials: a deck of cards, a timer

How to play:

1. Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out. Each player keeps his cards in a stack. Assign picture cards, such as jacks, queens, and kings, a value of 10. Give aces a value of 1.
2. Demonstrate to your child how to play the game: Each player turns two cards face up, reads the number sentence and supplies the answer. For example, if your child draws a 5 and a 4, he says 5 - 4 = 1. If you draw a 7 and an 2, then

your number sentence is 7-2 = 5. Because your result is larger, you win the four cards and you put them at the bottom of your pile.

3. If each of you has a number sentence with the same answer, then it's war! At this point, you'll reverse the math "operation" and do an addition problem. Each player puts four cards face down and turns up two of them. The player with the sum wins all eight cards.

4. Set up the timer and play the game for 10 to 15 minutes. When the timer goes off, each player counts his cards. The player with the most cards wins. If one player runs out of cards before the time is up, then the other player wins.

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What Remains?

Materials: Index cards or white paper cut down to size, pencil, paper, ruler, counters (plastic chips, pennies, beans), scratch paper

How to play:

1. Have your child and all other players write a unique division problems on 24 index cards. Distribute the cards evenly among the players and figure out the answers on scratch paper. Double check the answers to make sure they are correct.
2. Write the correct answer on the back of the index card.
3. Create a bingo card by making a grid on paper. The grid should be 5 squares across and 5 squares down, with the center square being the "Free" square. Write B-I-N-G-O at the top of the grid.
4. Read aloud all of the answers on the back of the index cards. Have the players write down the numbers inside the squares on their bingo cards. They should choose which square they wish to write each number in and continue writing numbers in the squares until each square has a number in it.
5. Shuffle the index cards and place them face up in a stack in the middle of the table, so the answers cannot be seen.
6. All players should place a counter on the "Free" space.
7. Read aloud the division problem on the first card and let all the players work out the answer on their pieces of scratch paper. The first player to call out the correct answer gets to use that number on his bingo card.
8. Continue playing until the first player to make a full row on his card shouts, "Bingo!"

Date:	Game:	Adult name:	Adult Signature:	Any notes or comments? Score?
JUN				
JUN				
JUL				
JUL				
AUG				