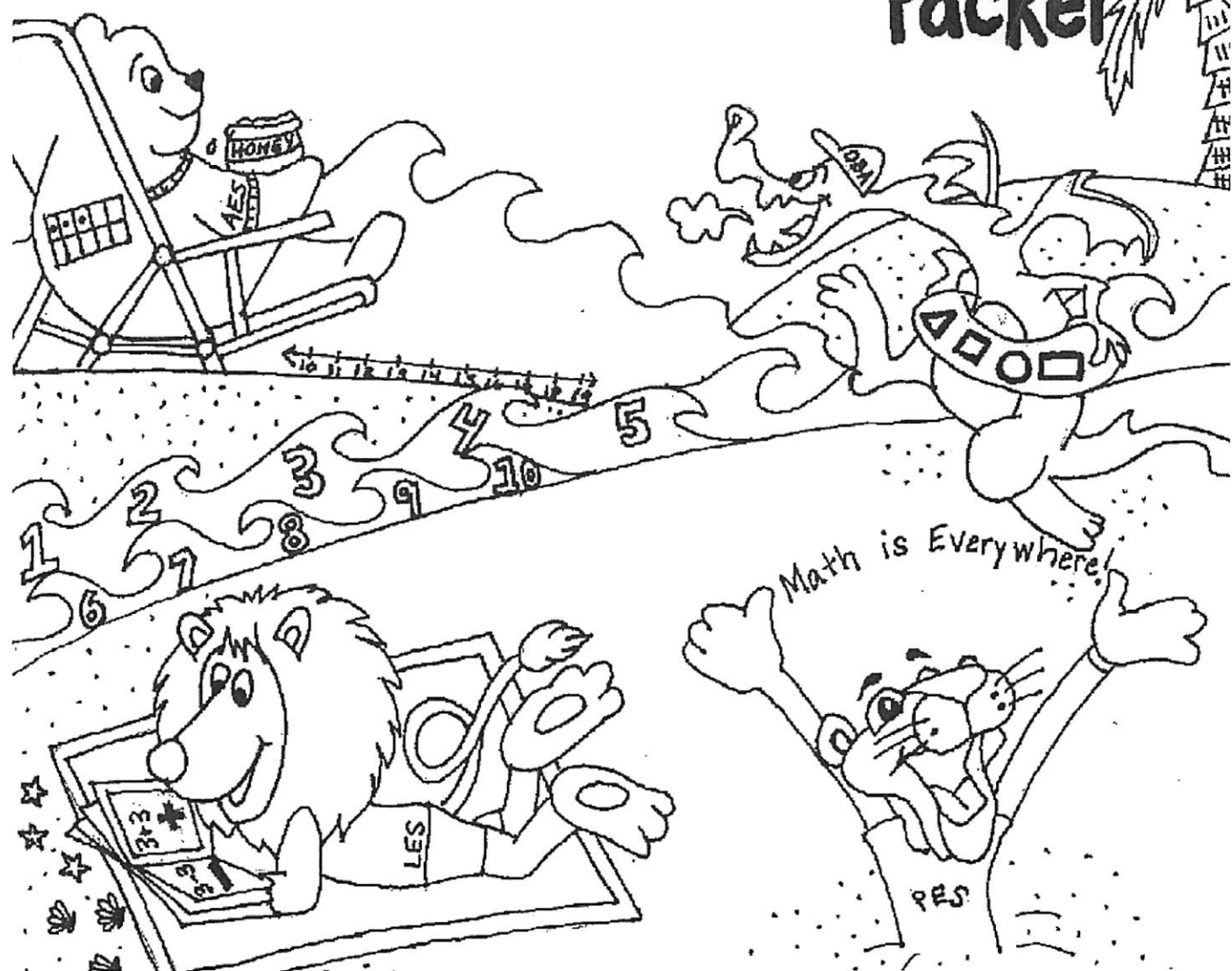


EWING PUBLIC
SCHOOLS

SUMMER MATH

Rising
6th Grade

Packet



Dear Parents/Guardians:

The Ewing Board of Education has endorsed the use of a Summer Mathematics Packet in order to keep your child's math skills honed and current through the summer break.

The attached packet includes two "bingo boards" of activities—one for July and the other for August. This formatting will allow for families to choose activities of interest to them. The goal is to complete four activities in a row, or the four corner boxes, on each board.

Each possible combination of four boxes on a board includes one of the following:

- **Family Activity:** These family activities are designed to take advantage of typical everyday activities and focus on the math involved. Suggested discussion questions are included in the description of each family activity for your convenience. Many of these activities are the same or nearly the same across the grade levels so that families with children of different ages may work together. For example, during a trip to the grocery store a younger child may work on keeping count of items in the cart while an older child tracks an estimate of the final cost of the items.
- **Story Problem:** These story problems focus on the major content that the students have worked on during the school year. Children may use numbers or drawings to keep track of their thinking as they work and should be encouraged to use strategies familiar to them. Only the final answer needs to be recorded in the bingo board box. If your child wishes to include his/her work, attach it to the board when it is returned to school.
- **Game to Practice Facts and Computational Skills:** The simple game directions are written in the bingo board boxes. Game play requires a deck of cards and dice. If you are unable to obtain these materials, please contact me via email or phone.
- **Free Choice Game:** Students may select from a variety of options to complete this task. Options include playing identified math games online or using the attached game boards. Options are listed on the back of this letter.

Please work with your child to complete four tasks on the July board and four tasks on the August board. Completed tasks should be circled. I suggest that your child do one math task a week, however, feel free to have your child work on additional tasks, marking the extra activities with a star. Sign both boards, and have your child return the bingo board page to his/her teacher on the first day of school.

Thank you for continuing to positively communicate that our students can be strong math thinkers by asking them questions, having them explain their thinking and reasoning, and working together to notice new things about mathematics. Your encouragement and support of your children's efforts in mathematics are vital in helping your children develop a love of math. If you have any questions regarding problem solving strategies your child is using, please feel free to contact me.



Don Wahlers
District Supervisor for Curriculum & Instruction
STEM, K-12

Rising Sixth Graders' Summer Math Bingo

FREE CHOICE GAMES

Choose from these options to complete the free choice games spots on the bingo boards. Once you've played the game, record the name of the game on the bingo board. Good luck!

Free Choice Online Games

Go to www.mathplayground.com , scroll down, and click on Grade 5. Select from the following games.

Factor Trees

Puppy Chase

Missing Digits Division (or Addition, Subtraction, or Multiplication) Demolition Derby Math Man

Free Choice Paper Games—game boards on the next page

Last Stop!

Materials: game board (attached), a penny and a dime, three dice

Decide who will be the penny, who will be the dime, and who will go first. The goal is to be the first player to reach the last stop on the board—12. Players travel along the track by creating each number through calculations. To take a turn, roll the three dice. Use any two or all three of these digits to make a 1 by adding, subtracting, multiplying, or dividing. If you can make a 1, move your coin to the 1 spot on the track. If you can make a 2 using the digits from the same roll, move to the 2 on the track. Keep moving along as far as you can. When you cannot make the next number on the track, it is the other player's turn. The player who makes 12 and moves his/her coin to the 12 spot first wins!

Roll, Flip, and Compare for Decimals

Materials: recording sheet (attached), one die, a deck of cards (A=1, no 10, J, Q, K), a pencil

Directions: Each player rolls a die to determine to what place they will create a decimal. (Players create decimals less than 1, so each decimal should have a 0 in the ones place.) If you roll a 1 or 2, make a decimal to tenths (0.____). A 3 or 4 makes a decimal to hundredths (0.____), and a 5 or 6 makes a decimal to thousandths (0.____). Take turns flipping over cards one at a time. Each player decides where to fill in the digit in their decimal; once a digit has been placed it cannot be moved. When both players have finished creating their decimals, compare using $<$, $>$, or $=$. Draw a star next to the larger value. The player with the most stars at the end of the game wins.

Coordinate Grid Battleship

Materials: Battleship game boards (attached), 2 pencils

Directions: The object of the game is to sink your opponent's ships. Each player should begin by drawing five ships on his/her "My Ships" board that each contains 3 adjacent points on the coordinate grid. Players take turns guessing the location of their opponent's ships by naming a coordinate pair and recording the results with an X for a hit and a circle for a miss. For example, if Player A guesses that Player B has a ship at (3,2) and it is a miss, Player A draws a circle on (3,2) on his/her "My Guesses" board and Player B draws a circle on (3,2) on his/her "My Ships" board. Play continues until one player has lost all of his/her ships; alternatively, play continues for a set time and the player with more undamaged ships wins.

Last Stop!

Start

12
11
10
9
8
7
6
5
4
3
2
1



Roll, Flip, & Compare for Decimals

Always put a zero in your ones place.

If you roll a... you make the place value to...

1 or 2 = tenths 0.

3 or 4 = hundredths 0.

5 or 6 = thousandths 0.

The player with more blank digits flips first.

★	Player A:	> < =	Player B:	★

[illegible]

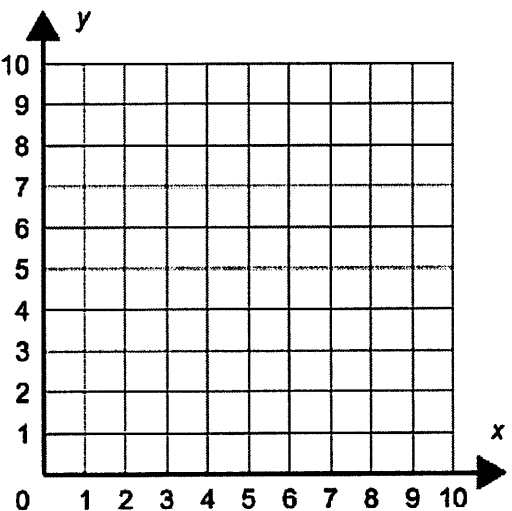
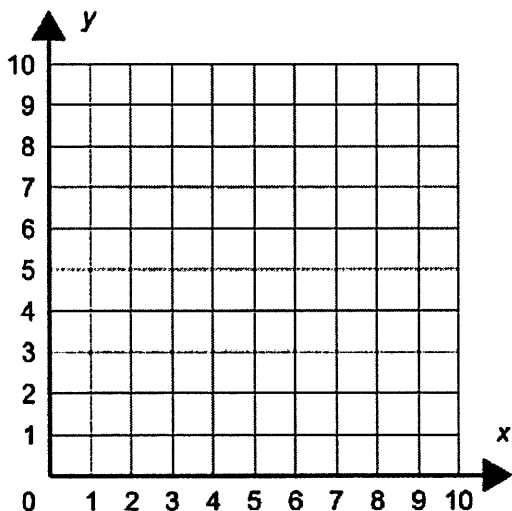
Coordinate Grid Battleship

Player A:

Player B:

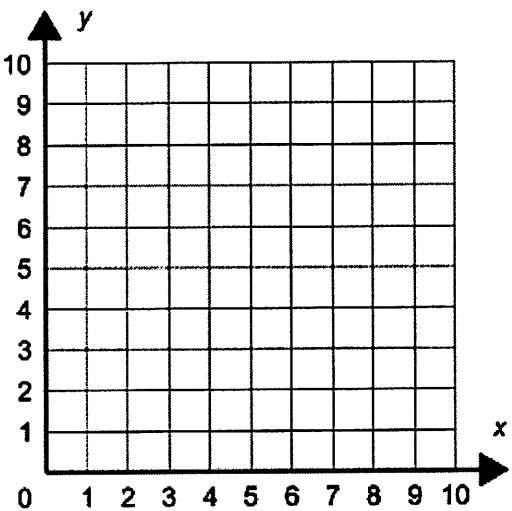
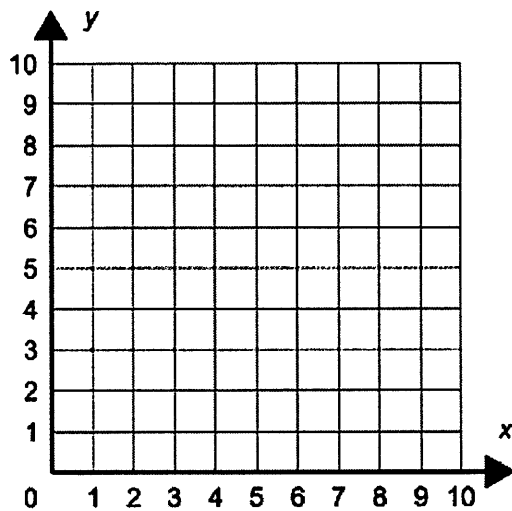
My Guesses:

My Guesses:



My Ships:

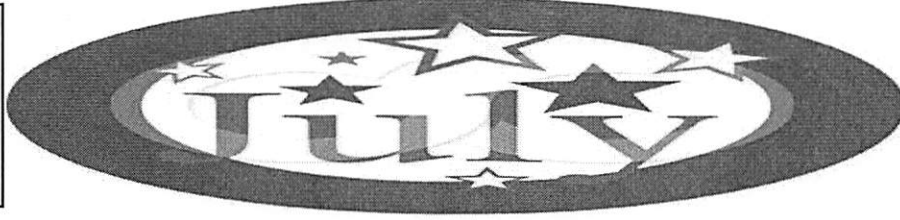
My Ships:



Rising Sixth Graders' Summer Math Bingo

☺ Select and complete four activities in a row (or the four corners) on your bingo board for the month of July. Circle each box as you complete it. Draw a star on any extra activities you complete just for fun. ☺

Student Name: _____



Parent/Guardian
Signature: _____

<p>Family Activity: Finding Volume</p> <p>Work together to think about the volume of rectangular prisms. What items in your home are rectangular prisms? Find a box (tissue box, cereal box, shipping box, etc.) and predict the measurements of the dimensions of the box and its volume. After predicting, measure and calculate. How close were your estimates?</p>	<p>Fraction Battle Game:*</p> <p>Players split a deck of cards equally and simultaneously flip over their two top cards and arrange the digits to make a fraction. (Fractions larger than 1 are allowed.) The greater fraction wins all four cards. If two equivalent fractions are created, play a tie breaker round to win both sets of cards. The player with the most cards at the end wins.</p>	<p>Free Choice Game:</p> <p>Select and play a game from the list. Which game did you play?</p> <p>_____</p>	<p>Concert Seats Problem:</p> <p>At the summer concert at the Sun Center there were 42 rows of 56 seats that were completely filled. If the Sun Center holds 2,500 people, how many seats were empty?</p> <p>_____</p>
<p>Free Choice Game:</p> <p>Select and play a game from the list. Which game did you play?</p> <p>_____</p>	<p>Gas Money Problem:</p> <p>Caesar and his family stopped for gas while on vacation. Gas cost \$1.79 per gallon and they bought 9 gallons. Caesar's mother gave the attendant \$20. How much change did she receive?</p> <p>_____</p>	<p>Family Activity: Plan a Vacation</p> <p>Pretend you are planning a vacation. Where would you go? What would you do? Do some research. How far away is it in miles? How long would it take to get there? How much would the activity, travel, and food cost? Plan an itinerary and budget for your vacation.</p>	<p>Hit the Target Game:*</p> <p>Deal each player 5 cards face up and 1 target card for the group. Set a timer for 1 min. Players try to make an equation to match the target number using as many of their own cards as they can. When time is up, players share their equations; each player keeps the cards they used and discards their unused cards. Play three rounds. The player with more cards wins.</p>
<p>Ribbon Crafts Problem:</p> <p>Tia and Mia were making projects at art camp. Each girl had 4 yds. of ribbon. Tia needed one-third of a yard of ribbon for each craft. Mia needed one-fourth of a yard of ribbon for each craft. Who can make more crafts? How many more?</p> <p>_____</p>	<p>Free Choice Game:</p> <p>Select and play a game from the list. Which game did you play?</p> <p>_____</p>	<p>24 Game:*</p> <p>Flip over four cards for all players to use. Each player tries to achieve a result of 24. The players may add, subtract, multiply, or divide the digits appearing on the cards in any combination, but all four cards must be used. The player who achieves 24 wins the point. If no one gets 24, the player closest to 24 wins the point. The first player with three points wins!</p>	<p>Family Activity: License Plate Math</p> <p>Have a family contest. Each member selects a color of car. When you find a car of your color, multiply the digits on the license plate and add 1 for every letter. During your trip, keep track of who found the car with the largest resulting number. Ex: JRY-65T would be worth 34 ($6 \times 5 + 4 = 34$) and W4Y-R36 = $4 \times 3 \times 6 + 3 = 75$.</p>
<p>Get to the Decimal Point Game:*</p> <p>Decide which player will be odd and which will be even. Each player flips 2 cards face up. Players are given a moment to think, then do a countdown to place a penny in their numbers as decimal points. (Ex: cards 6 and 4 can be 0.64, 6.4, or 64.) Once decimal points have been placed, players add both numbers, round to the nearest whole number, and determine if this is odd or even. Cards go to the appropriate player.</p>	<p>Family Activity: How do you use math?</p> <p>Talk with the adults in your family. Discuss: How do you use math in your everyday life? (at home, at work, shopping, budgeting, etc.) What math tools do you use?</p>	<p>Running Miles Problem:</p> <p>Tony ran $2\frac{1}{2}$ miles on Monday and $3\frac{1}{4}$ miles on Tuesday. Tina ran 4.5 miles on Monday and 1.2 miles on Tuesday. Who ran farther? How much farther?</p> <p>_____</p>	<p>Free Choice Game:</p> <p>Select and play a game from the list. Which game did you play?</p> <p>_____</p>

*For these card games, use an Ace as 1 and omit the 10s and face cards (Jacks, Queens, Kings).

Rising Sixth Graders' Summer Math Bingo

☺ Select and complete four activities in a row (or the four corners) on your bingo board for the month of August. Circle each box as you complete it. Draw a star on any extra activities you complete just for fun. ☺

Student Name:

goodbye July. hello
AUGUST

Parent/Guardian
Signature:

<p>Family Activity: Grocery Store Math Take a trip to the grocery store. Work together to round the cost of each item and keep track of the total cost along the way. Compare your estimate to the final cost.</p>	<p>Money Multiplier Game:* Each player sets up a recording sheet: $\\$ _ . _ _ \times \bigcirc = _ _ _$ Player A rolls one die and places the digit on a blank. Once a digit has been placed it can't be moved. Player B takes a turn. When all the blanks have been filled, each player rolls the die to determine the factor to record in his/her circle. Multiply. The product is banked. Play continues; first to bank \$100 wins.</p>	<p>Free Choice Game: Select and play a game from the list. Which game did you play? _____</p>	<p>Tickets Problem: Jalen and Joy went to the county fair. Tickets for the rides were 75¢ each. Jalen bought 12 tickets and Joy bought 15 tickets. How much did all of their tickets cost? _____</p>
<p>Free Choice Game: Select and play a game from the list. Which game did you play? _____</p>	<p>Bags of Cookies Problem: Write an expression that could be used to represent the following: Maria and Vani baked cookies to sell at the market. Maria baked 48 sugar cookies. Vani baked 4 batches of 20 raisin cookies. They combined them and put 8 in each bag. _____</p>	<p>Family Activity: Cooking Together Work together to prepare a favorite recipe. Have your child read the recipe and measure out the ingredients. Discuss: What quantity of each ingredient would be needed to halve the recipe?</p>	<p>Roll & Multiply Game:* Each player sets up a recording sheet: ____ Player A rolls one die and \times ____ places the digit in one of ____ the factor blanks. Once a digit has been placed it cannot be moved. Player B takes a turn. After all the spots in the factors are filled, players multiply to find the product. The larger product wins a point. First to 3 points wins.</p>
<p>Blueberries Problem: Josh and Molly went blueberry picking. Josh filled a box that was 8" by 9" by 3". Molly filled a box that was 9" by 4" by 5". Who picked more blueberries? How much more? _____</p>	<p>Free Choice Game: Select and play a game from the list. Which game did you play? _____</p>	<p>Smallest Sum Game:* Each player sets up a decimal addition recording sheet: $_ . _ _ + _ . _ _ = _ _ _$ Players take turns rolling one die, placing the digit in one of the addend blanks. Once a digit is placed it cannot be moved. After the blanks are filled, each player finds his/her sum; this sum is his/her score. The player with the lowest score after 3 rounds wins.</p>	<p>Family Activity: Board Game Play a board game together, such as Monopoly, Yahtzee, Parcheesi, Trouble, Pay Day, Sorry!, Checkers, etc.</p>

<p>Knock Out 50 Game:*</p> <p>This brainteaser game can be played alone or as a cooperative team. List the numbers 1 – 50 in columns on a piece of paper with an = after each number. Roll a die five times. Record each digit on the top of the page. Use any 2, 3, 4, or 5 of these digits to make equations to try to knock out all 50 numbers. Ex: rolled digits 5, 1, 6, 3, 3 can knock out many numbers... $11 = 5 + 6$, $21 = (6 + 1) \times 3$, $12 = 6 + 3 + 3$, $50 = 5 \times (6 + 3 + 1)$, $40 = 5 \times 6 + 3 \times 3 + 1$, etc</p>	<p>Family Activity: Number Hunt</p> <p>Take a walk around the house, the neighborhood, or a place you are visiting. Discuss: What fractions or decimals do you see? How are the fractions or decimals being used? What is the smallest fraction or decimal you could find?</p>	<p>Bike Riding Problem:</p> <p>Carla rode her bike $3\frac{1}{2}$ miles to get to the park. Gabe had to ride 3 times as far as Carla to get to the park. How many more miles did Gabe ride than Carla?</p> <p>_____</p>	<p>Free Choice Game:</p> <p>Select and play a game from the list. Which game did you play?</p> <p>_____</p>
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*Use regular dice for these games. If you don't have dice, you can use cards Ace (1) through 6.