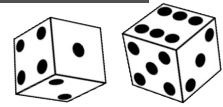




ST Math.  
Summer Immersion

# TABLE GAME RESOURCES

Instructions & Game Boards



Grades 3-5

# TRAFFIC LIGHTS TIC-TAC-TOE



**Players:** 2

**Supplies:**

Traffic Lights Tic-Tac-Toe Game Board; red, yellow, and green color tiles (9 of each color)

**Objective:** Have three same color tiles in a row.

**How to Play:**

1. Decide who goes first.
2. Players take turns placing or replacing a tile on the Traffic Lights Tic-Tac-Toe Game Board.
  - a. Only a red tile can be placed in an empty space (cell).
  - b. Only a yellow tile can replace a red tile.
  - c. Only a green tile can replace a yellow tile.
  - d. Nothing replaces a green tile.
3. Players can make any possible play in any cell.
4. The winner is the player who places three of the same color tiles (red, yellow, or green) in a row (across, up and down, or diagonally).



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# TRAFFIC LIGHTS TIC-TAC-TOE



**Players:** 2

**Supplies:**

Traffic Lights Tic-Tac-Toe Game Board; red, yellow, and green color tiles (9 of each color)

**Objective:** Have three same color tiles in a row.

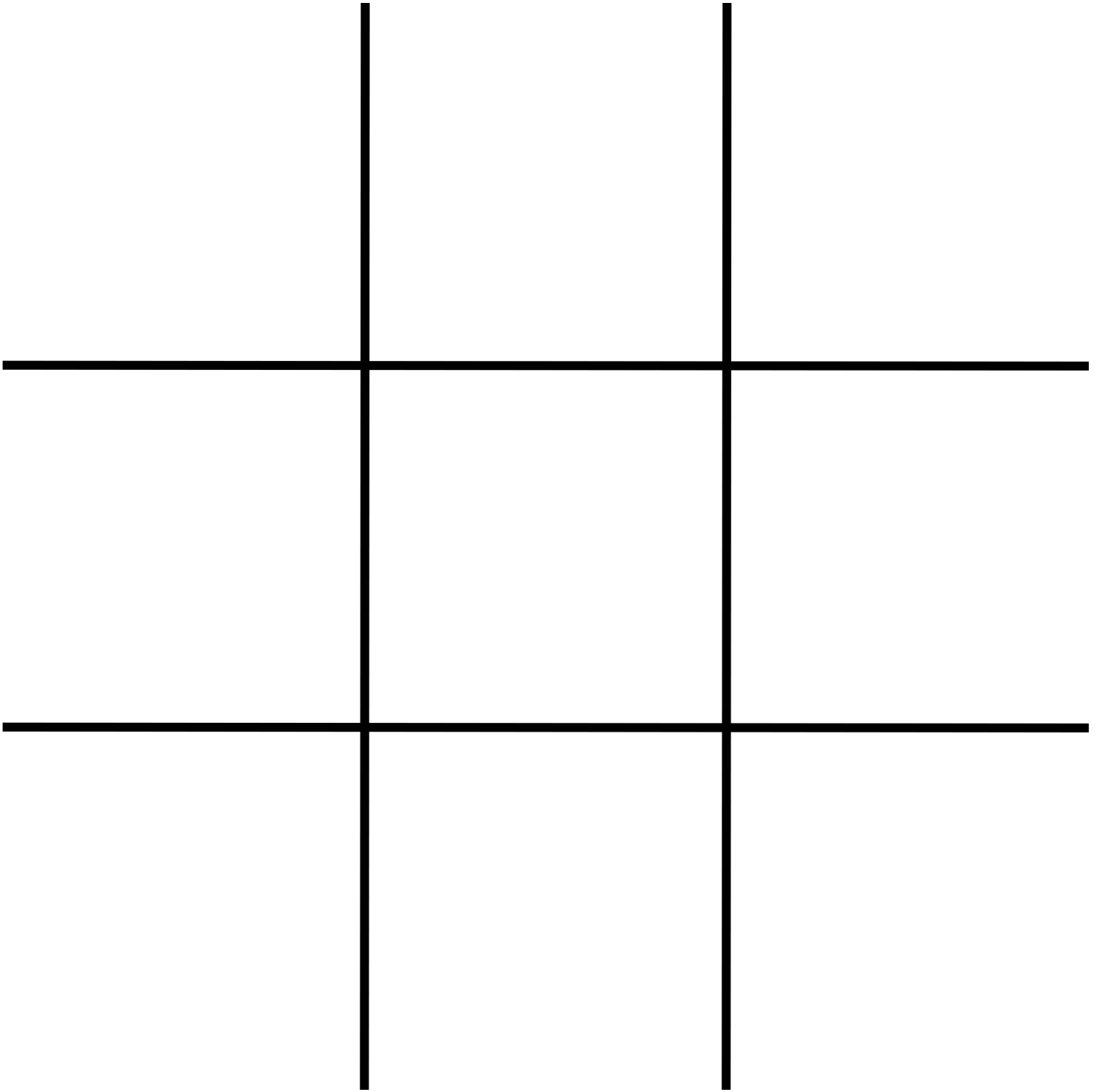
**How to Play:**

1. Decide who goes first.
2. Players take turns placing or replacing a tile on the Traffic Lights Tic-Tac-Toe Game Board.
  - a. Only a red tile can be placed in an empty space (cell).
  - b. Only a yellow tile can replace a red tile.
  - c. Only a green tile can replace a yellow tile.
  - d. Nothing replaces a green tile.
3. Players can make any possible play in any cell.
4. The winner is the player who places three of the same color tiles (red, yellow, or green) in a row (across, up and down, or diagonally).



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# TRAFFIC LIGHTS TIC-TAC-TOE GAME BOARD



# DARA



**Players:** 2

**Supplies:**

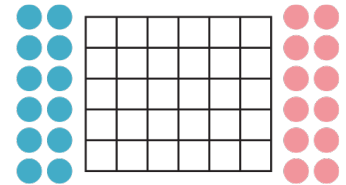
Dara Game Board; 2 sets of small game pieces (12 pieces in each set; each set a different color)

**Objective:** To be the first to capture 10 of your opponent's game pieces.

**How to Play:**

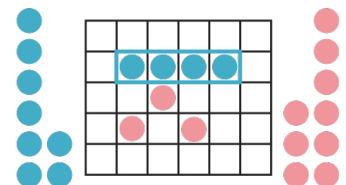
Setting up

- Players take turns placing their game pieces on empty squares.
- Players avoid placing more than three pieces in a horizontal or vertical row.
- Four or more pieces of the same color next to each other in any row is not allowed at any time.
- No pieces can be captured during the setting up phase.



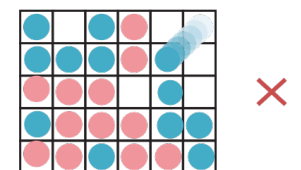
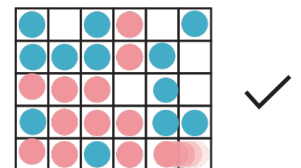
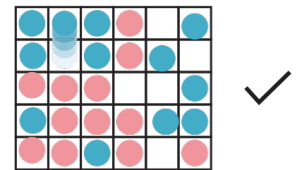
Moving

- The first move is made after all the pieces have been placed on the board.
- Players take turns moving one of their pieces one space horizontally or vertically, but NOT diagonally.
- When making a move, a player cannot immediately follow it by moving the same piece back to the same space again.
- If a player cannot move, their turn is skipped.



Capturing

- To capture, a player makes a new horizontal or vertical row of three of their pieces.
- When a new row is made, that player can remove any one of the opponent's pieces from the game.
- Only one piece can be captured per move, even if multiple rows of three are created with one move.
- The winner is the player who has 10 of their opponent's pieces.





# DARA GAME BOARD


# EQUIVALENT FRACTION CONCENTRATION



**Players:** 2 to 4

**Supplies:**

1 set of printed and cut Equivalent Fractions Cards

**Objective:** Obtain the most cards.

**How to Play:**

1. Decide who goes first.
2. Shuffle the cards, and then place them face-down in an array.
3. Players take turns flipping two cards face-up.
  - a. If the fractions on the cards are equivalent, the player keeps those cards and continues to flip cards until they do not have an equivalent match.
  - b. If the fractions are not equivalent, the cards are flipped face-down.
4. Play continues until all cards are removed.
5. The winner is the player with the most cards.



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# EQUIVALENT FRACTION CONCENTRATION



**Players:** 2 to 4

**Supplies:**

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**Objective:** Obtain the most cards.

**How to Play:**

1. Decide who goes first.
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  - a. If the fractions on the cards are equivalent, the player keeps those cards and continues to flip cards until they do not have an equivalent match.
  - b. If the fractions are not equivalent, the cards are flipped face-down.
4. Play continues until all cards are removed.
5. The winner is the player with the most cards.



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# EQUIVALENT FRACTION CARDS 1

Cut out cards.

$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{2}{3}$
$\frac{3}{3}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$
$\frac{4}{4}$	$\frac{1}{6}$	$\frac{2}{6}$	$\frac{3}{6}$
$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$	$\frac{2}{8}$
$\frac{4}{8}$	$\frac{6}{8}$	$\frac{8}{8}$	$\frac{2}{12}$

# EQUIVALENT FRACTION CARDS 2

Cut out cards.

$\frac{3}{12}$	$\frac{4}{12}$	$\frac{6}{12}$	$\frac{8}{12}$
$\frac{9}{12}$	$\frac{10}{12}$	$\frac{1}{5}$	$\frac{2}{5}$
$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$	$\frac{2}{10}$
$\frac{4}{10}$	$\frac{5}{10}$	$\frac{6}{10}$	$\frac{8}{10}$
$\frac{3}{9}$	$\frac{6}{9}$	$\frac{4}{16}$	$\frac{12}{16}$

# MULTIPLICATION CONNECT FOUR



**Players:** 2

**Supplies:**

Multiplication Connect Four Game Board; 2 paper clips, 2 different color chips (20 of each color),

**Objective:** To place four of the same color chips in a row (across, up and down, or diagonally).

**How to Play:**

1. Decide who goes first.
2. Player 1 places a paper clip on any number on the bottom strip.
3. Player 2 places a paper clip on any number on the bottom strip. Then Player 2 multiplies the two numbers with paper clips and places their chips on that number (product) on the game board.  
(Example: If Player 1's clip is on 4 and Player 2's clip is on 5, then Player 2 will multiply  $4 \times 5$  and place their chip on the product, which is 20.)
4. Next, Player 1 moves one of the paper clips, multiplies the two numbers, and places their game piece on that number (product) on the board.
  - a. Once a chip is placed on the game board, it cannot be moved or replaced.
  - b. You can have two paper clips on the same number on the bottom strip.
5. Play continues until one player has four of their chips in a row on the board (across, up and down, or diagonally), without any of the opposite chips in between their four chips.
6. The first player with four game chips in a row wins.

**Examples:**

12	15	20	16	7	●	20	15
13	18	10	20	15	●	19	9
11	8	17	13	18	●	10	16
10	6	14	11	9	●	●	19
13	16	4	●	●	●	●	●

12	15	20	16	●	9	20	15
13	18	10	●	●	12	19	9
11	8	●	●	●	14	10	16
10	●	●	●	●	10	15	19
13	●	●	●	●	20	12	5

12	15	20	16	7	9	20	15
13	18	10	20	15	12	19	9
11	8	17	13	18	14	10	16
10	●	●	●	●	10	15	19
●	●	●	●	●	20	12	5

**Non-Examples:**

12	15	20	16	7	●	20	15
13	18	10	20	●	●	19	9
11	8	17	●	●	●	10	16
10	6	●	●	●	●	15	19
13	●	●	●	●	●	12	5

12	15	20	16	7	9	20	15
13	18	10	20	15	12	19	9
11	8	●	13	18	14	10	16
●	●	●	●	●	10	15	19
●	●	●	●	●	20	12	5

12	15	20	16	7	9	20	15
13	18	●	20	15	12	19	9
11	●	●	13	18	14	10	16
●	●	●	●	9	10	15	19
●	●	●	●	17	20	12	5

# MULTIPLICATION CONNECT FOUR GAME BOARD

81	15	64	16	7	9	30	36
28	56	36	21	54	12	40	4
24	1	27	45	18	14	72	35
49	6	24	2	63	10	54	48
3	63	56	8	42	25	32	5

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

# NUMBER LINE FRACTION BINGO



**Players:** 2 to 4

**Supplies:**

1 set of Number Line Fraction Bingo Cards, 1 Number Line Fraction Bingo Strips for each player, four-centimeter cubes (4 each player)

**Objective:** Remove all cubes on the number line and say “Bingo”.

**How to Play:**

1. Deal one card to each player. The player with the highest fraction card will go first. Play will continue counterclockwise if there are more than 2 players.
2. Shuffle fraction cards and place face-down in the center.
3. Before game play begins, each player places four cubes on any fraction on their number line. More than one cube can be placed on the same number.
4. Player 1 draws two fraction cards from the pile.
5. Then Player 1 decides whether to add or subtract the fractions on the cards drawn.
  - a. If the sum or difference is equal to a fraction where a cube has been placed, remove the cube. You can only remove one cube each turn.
  - b. If the sum or difference is not equal to any fractions where there is a cube placed, the player loses their turn. .
6. The winner is the first player to remove all of their cubes from their number line.



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# NUMBER LINE FRACTION BINGO



**Players:** 2 to 4

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**How to Play:**

1. Deal one card to each player. The player with the highest fraction card will go first. Play will continue counterclockwise if there are more than 2 players.
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5. Then Player 1 decides whether to add or subtract the fractions on the cards drawn.
  - a. If the sum or difference is equal to a fraction where a cube has been placed, remove the cube. You can only remove one cube each turn.
  - b. If the sum or difference is not equal to any fractions where there is a cube placed, the player loses their turn. .
6. The winner is the first player to remove all of their cubes from their number line.



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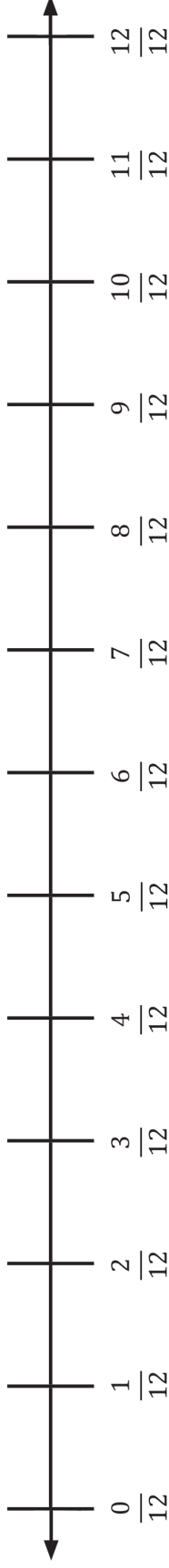
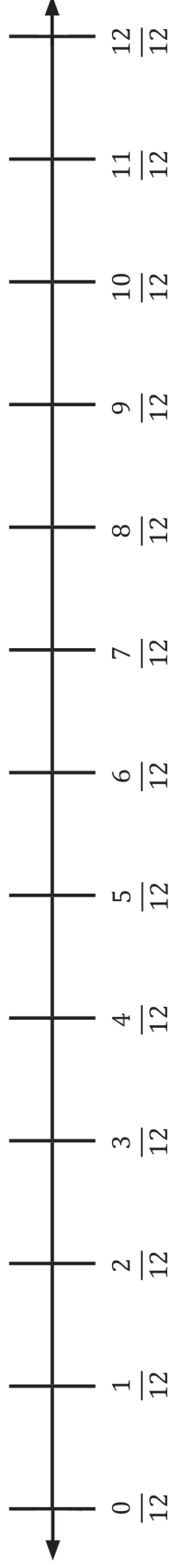
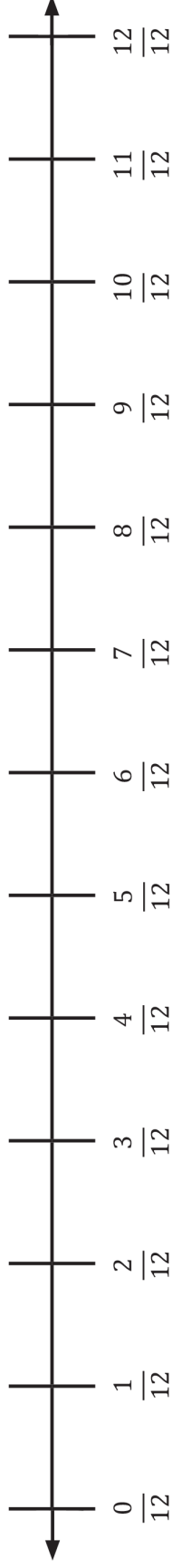
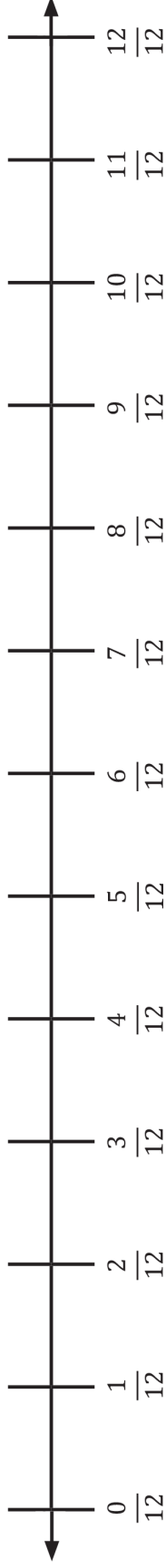
# NUMBER LINE FRACTION BINGO CARDS

Cut out cards.

$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{3}$
$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{1}{6}$
$\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$
$\frac{1}{12}$	$\frac{2}{12}$	$\frac{3}{12}$	$\frac{4}{12}$	$\frac{5}{12}$
$\frac{6}{12}$	$\frac{7}{12}$	$\frac{8}{12}$	$\frac{9}{12}$	$\frac{10}{12}$
$\frac{11}{12}$	$\frac{12}{12}$	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{12}$



# NUMBER LINE FRACTION BINGO STRIPS



Cut apart number lines on dotted lines.

# FINAL COUNTDOWN



**Players:** 2 to 4

**Supplies:**

1 deck of cards, 3 game chips per player to be used as multiplication chips, scrap paper and pencils (recommended)

**Objective:** First player to get to 0.

**How to Play:**

1. Shuffle the cards.
2. Deal out four cards per player.
3. Place the remaining cards in the middle face-down.
4. Player 1 places a card from their hand face-up in the center and subtracts the value from 100. (For example, Player 1 plays a 7 and says "93.") They take the top face-down card to replace the card they played.
5. Player 2 places a card from their hand face-up on top of the first card, subtracts the value of their card from the new number, and takes a card from the face-down pile. (For example, Player 2 plays a 10 and says "83.")
6. As play continues, each player adds a card to the pile and states the new difference.
7. After playing their card, each player picks the top face-down card from the center deck to replace the card they played.
8. The winner is the first player to land on zero. If a player does not land on zero, that player loses a turn. (For example, if the player is on 4 and draws a 5, the player loses a turn.)

**How to use the Multiplication Chips:**

- Each player gets three multiplication chips, which they can play when it's their turn. The chips change the value of a card.
- The player can use a multiplication chip to multiply their played card by 3 or 5. For example, a 6 card played with a chip means the player can subtract 18 or 30.



**CARD VALUE:**

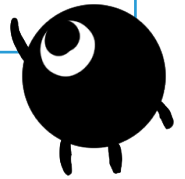
**Jack:** Double the previous card played

**Queen:** Wild card (can be played as any other card in the deck)

**Kings:** 0

**Aces:** 1

**Cards 2-10:** Face value



# RACE TO 2



**Players:** 2 to 4

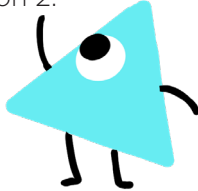
**Supplies:**

1 set of Race to 2 Fraction Cards, 1 Race to 2 Game Board, 1 small game piece for each player

**Objective:** Land on 2 on the number line.

**How to Play:**

1. Shuffle the cards. Then, place them and place face-down in the center.
2. Each player places their marker on 0 on a different number line on the game board.
3. Player 1 flips over one fraction card and moves that value to the right on their number line.
4. Play continues with each player in turn selecting a card and moving that value to the right on their number line.
5. If the selected number results in a number greater than 2, the player subtracts the value and moves to the left of their position on the number line.
6. The winner is the first player to land on 2.



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# RACE TO 2



**Players:** 2 to 4

**Supplies:**

1 set of Race to 2 Fraction Cards, 1 Race to 2 Game Board, 1 small game piece for each player

**Objective:** Land on 2 on the number line.

**How to Play:**

1. Shuffle the cards. Then, place them and place face-down in the center.
2. Each player places their marker on 0 on a different number line on the game board.
3. Player 1 flips over one fraction card and moves that value to the right on their number line.
4. Play continues with each player in turn selecting a card and moving that value to the right on their number line.
5. If the selected number results in a number greater than 2, the player subtracts the value and moves to the left of their position on the number line.
6. The winner is the first player to land on 2.



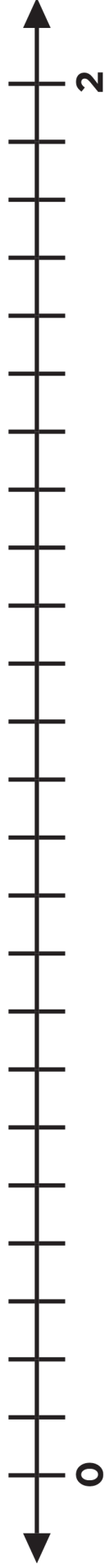
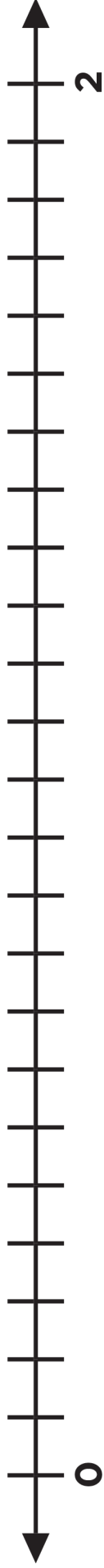
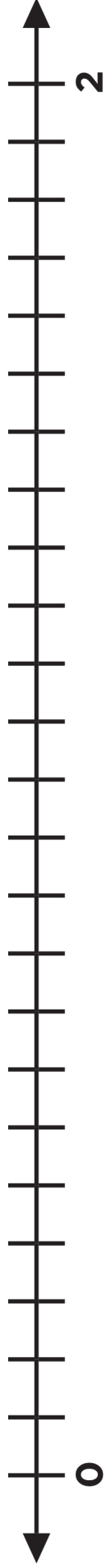
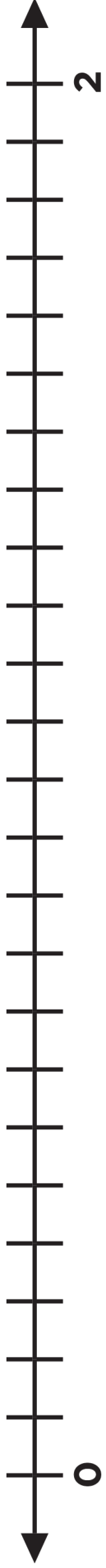
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# RACE TO 2 FRACTION CARDS

Cut out cards.

$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{3}$
$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{1}{6}$
$\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$
$\frac{1}{12}$	$\frac{2}{12}$	$\frac{3}{12}$	$\frac{4}{12}$	$\frac{5}{12}$
$\frac{6}{12}$	$\frac{7}{12}$	$\frac{8}{12}$	$\frac{9}{12}$	$\frac{10}{12}$
$\frac{11}{12}$	$\frac{12}{12}$	Lose Your Turn	Draw Another Card	Draw Another Card

# RACE TO 2 GAME BOARD

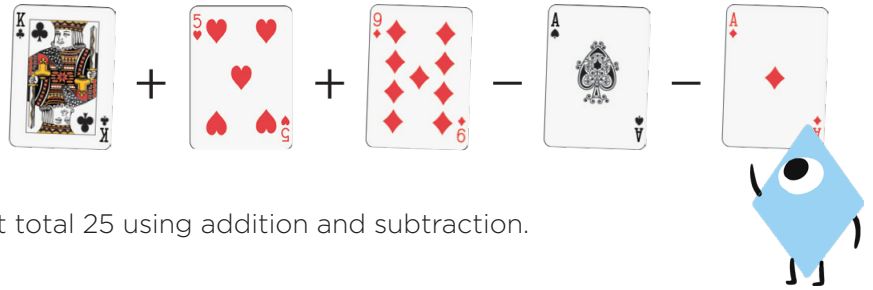


# FIVE FOR TWENTY-FIVE



**Players:** 2 to 4

**Supplies:**  
1 deck of cards



**Objective:** To have a hand of five cards that total 25 using addition and subtraction.

## How to Play:

1. Deal five cards to each player.
2. Place the remaining cards in the center of the group.
3. Players will look at their cards and determine if they can get 25 using addition and subtraction.
  - a. When a player has a hand totaling 25 using all five cards, they will call out "25." That player wins if they are first to say 25 and can successfully show how they made 25.
  - b. If no player has cards that total 25, the round is over.
4. To begin the new round, each player must discard one card in a discard pile first, then draw one new card from the pile.
5. Continue playing until one player has 25.



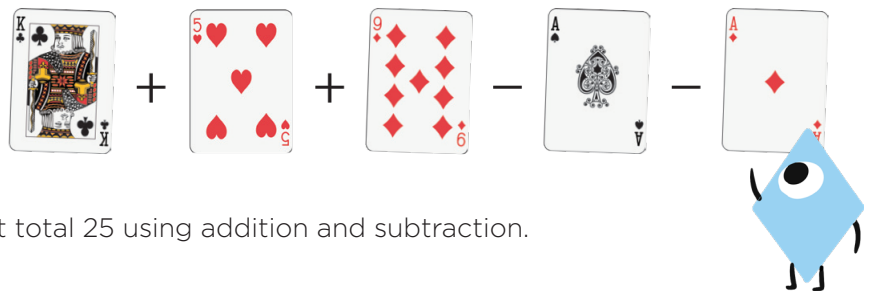
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# FIVE FOR TWENTY-FIVE



**Players:** 2 to 4

**Supplies:**  
1 deck of cards



**Objective:** To have a hand of five cards that total 25 using addition and subtraction.

## How to Play:

1. Deal five cards to each player.
2. Place the remaining cards in the center of the group.
3. Players will look at their cards and determine if they can get 25 using addition and subtraction.
  - a. When a player has a hand totaling 25 using all five cards, they will call out "25." That player wins if they are first to say 25 and can successfully show how they made 25.
  - b. If no player has cards that total 25, the round is over.
4. To begin the new round, each player must discard one card in a discard pile first, then draw one new card from the pile.
5. Continue playing until one player has 25.



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# RACE TO 100



**Players:** 2 to 4

**Supplies:**

1 dice, 1 game piece per player, 1 set of operation cards per player (+, x, ÷, -) on index cards, 1 copy of Hundred Chart

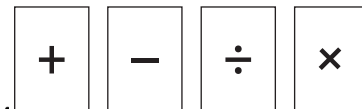
**Objective:** Be first to land on 100 first without going over.

**How to Play:**

1. Decide who goes first. Take turns playing.
2. Each player puts a game piece on 50 on the Hundred Chart. (Note: A game piece can never move off the Hundred Chart.)
3. Player 1 rolls the dice, then chooses one of the four operations cards from their set. Note: All of the operation cards must be used in their first four turns and can only be used once. When they are all used, each player gets the full set of four cards.
4. Player 1 moves their game piece from the number 50 based on what number they rolled and the operation card they decided to use. For example, if Player 1 rolls a 5 and chooses the division operation card, then they would move their game piece to 10, because  $50 \div 5 = 10$ . Afterward, Player 1 flips over the division card and can no longer use their division card in Round 1.
5. Play continues to Player 2.
6. Once a player flips all four operation cards, the operation cards are reset (flipped back over).
7. The first player to land on 100 wins.

**SETTING UP**

Create a set of operation cards for each player. A set consists of one operation drawn on an index card as shown below:



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# RACE TO 100



**Players:** 2 to 4

**Supplies:**

1 dice, 1 game piece per player, 1 set of operation cards per player (+, x, ÷, -) on index cards, 1 copy of Hundred Chart

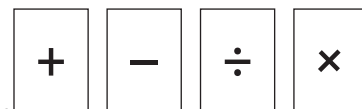
**Objective:** Be first to land on 100 first without going over.

**How to Play:**

1. Decide who goes first. Take turns playing.
2. Each player puts a game piece on 50 on the Hundred Chart. (Note: A game piece can never move off the Hundred Chart.)
3. Player 1 rolls the dice, then chooses one of the four operations cards from their set. Note: All of the operation cards must be used in their first four turns and can only be used once. When they are all used, each player gets the full set of four cards.
4. Player 1 moves their game piece from the number 50 based on what number they rolled and the operation card they decided to use. For example, if Player 1 rolls a 5 and chooses the division operation card, then they would move their game piece to 10, because  $50 \div 5 = 10$ . Afterward, Player 1 flips over the division card and can no longer use their division card in Round 1.
5. Play continues to Player 2.
6. Once a player flips all four operation cards, the operation cards are reset (flipped back over).
7. The first player to land on 100 wins.

**SETTING UP**

Create a set of operation cards for each player. A set consists of one operation drawn on an index card as shown below:



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# HUNDRED CHART



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





# JIJI SUDOKU | LEVEL: MEDIUM

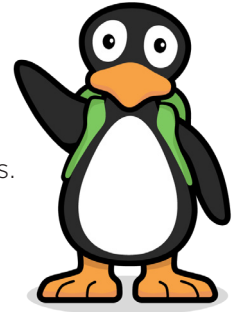
**Players:** 1 (or 2 working together)

**Supplies:** 1 sheet of JiJi Sudoku | Level: Medium and math critter game pieces cut out

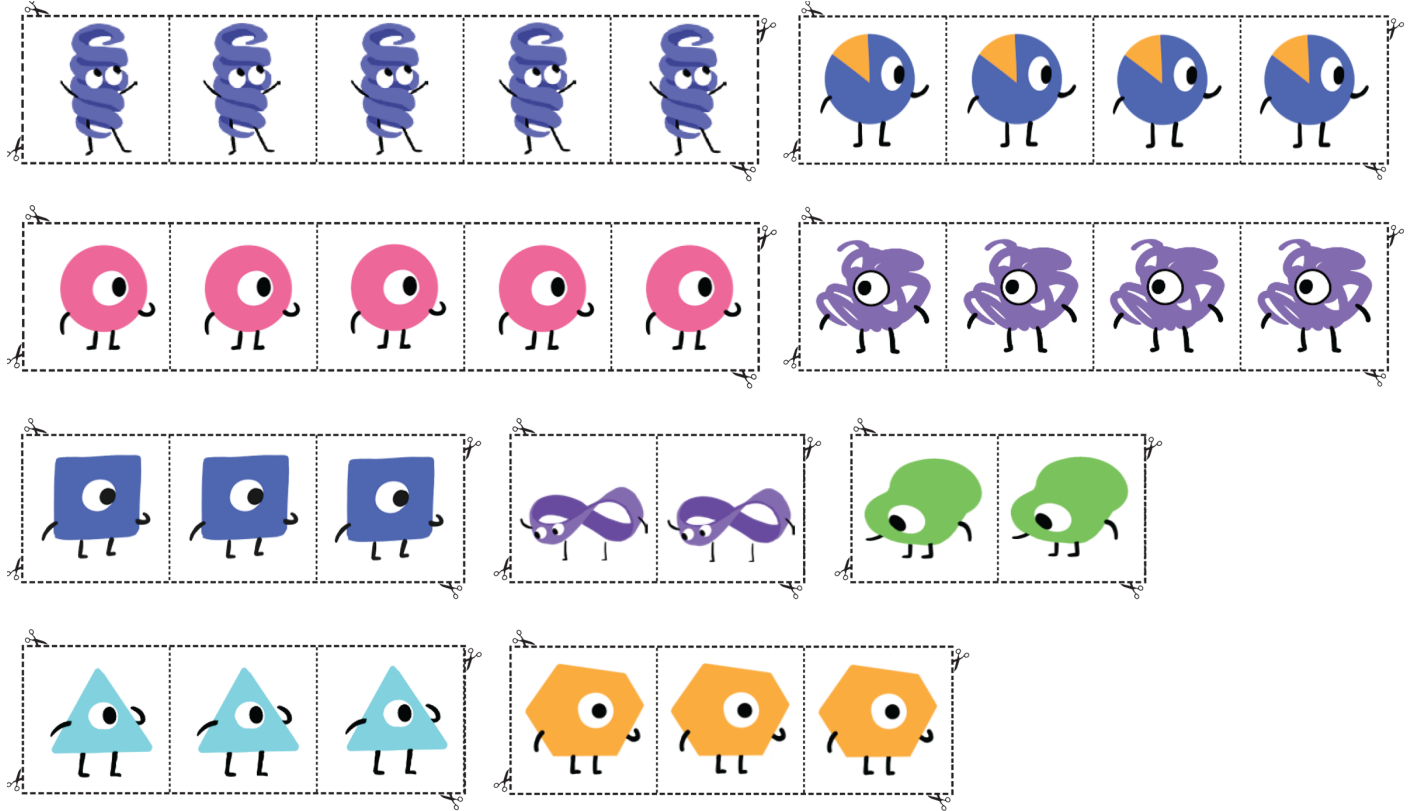
**Objective:** To fill in one math critter in every row, column, and 3x3 grid.

**How to Play:**

- There are nine unique math critters. The 9 x 9 grid is divided into smaller 3 x 3 blocks.
- Each 3 x 3 block can only contain a unique math critter.
- Each vertical column in the grid can only contain a unique math critter.
- Each horizontal row in the grid can only contain a unique critter.




# MATH CRITTER GAME PIECES | LEVEL: MEDIUM



# JIJI SUDOKU | LEVEL: CHALLENGE

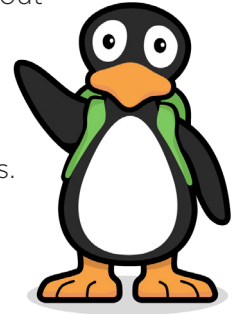
**Players:** 1 (or 2 working together)


































**Supplies:** Printed 9 x 9 JiJi Sudoku | Level: Challenge and Math Critter Game Pieces cut out

**Objective:** To fill in one math critter in every row, column, and 3x3 grid.

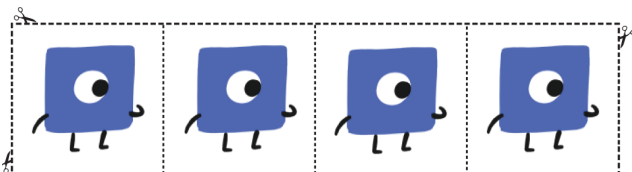
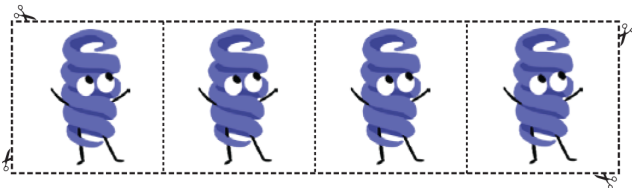
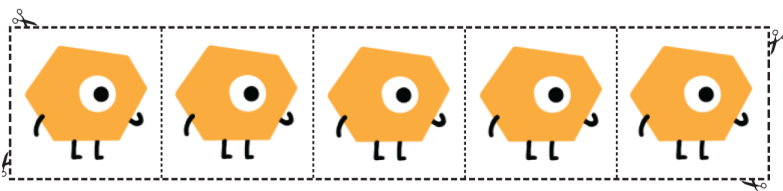
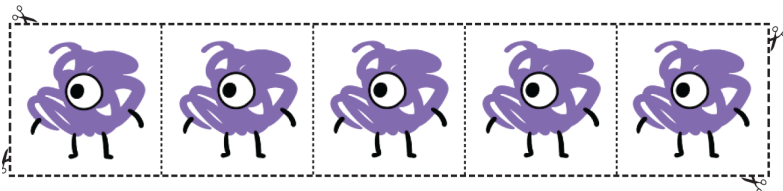
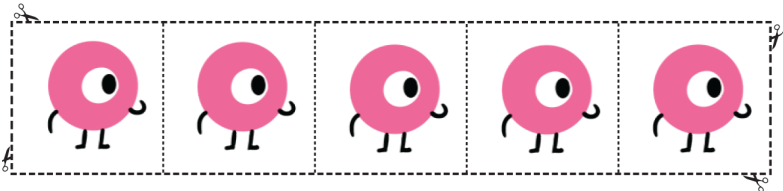
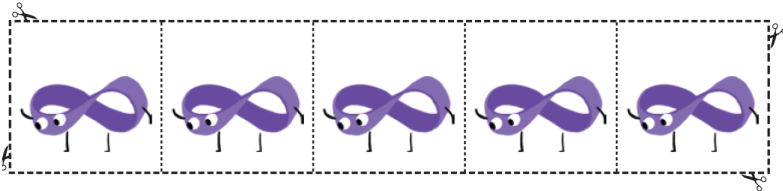
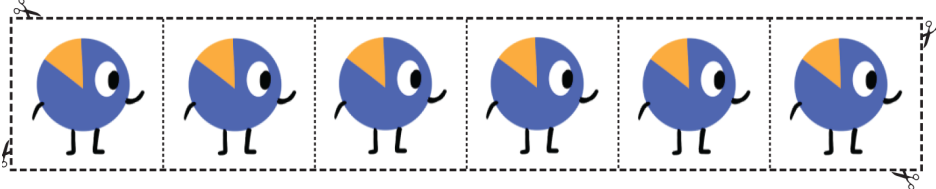
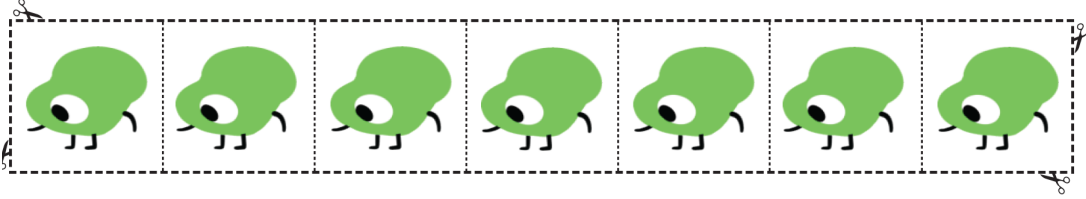
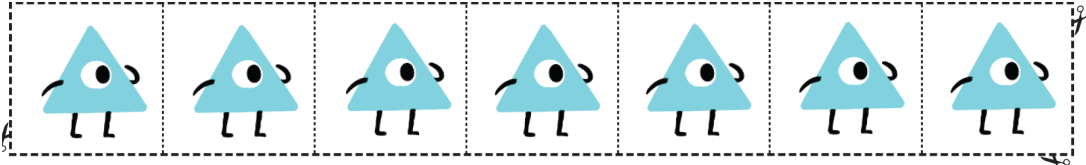
**How to Play:**

- There are nine unique math critters. The 9 x 9 grid is divided into smaller 3 x 3 blocks.
- Each 3 x 3 block can only contain a unique math critter.
- Each vertical column in the grid can only contain a unique math critter.
- Each horizontal row in the grid can only contain a unique math critter.



# MATH CRITTER GAME PIECES | LEVEL: CHALLENGE



# SUDOKU | LEVEL: VARIOUS

**Players:** 1 (or 2 working together)

**Supplies:** Printed Sudoku board (below)

**Objective:** Fill in the grid with numbers so that every row, column,

**How to Play:**

- The 9 x 9 grid is divided into 3 x 3 blocks.
- Complete each block with numbers 1, 2, 3, 4, 5, 6, 7, 8, 9.
- No rows or columns of the 9 x 9 grid can have the same number.

	9	3	1		5	6	4	
7								5
5		1	2		9	3		7
2								3
	3	6	9		7	5	2	
9								1
3		2	4		8	1		9
6								4
	4	7	3		2	8	5	

Easy

5					2		8	
								6
		7	1			5	3	
	3		7				5	9
		2		4		8		
7	5				9		1	
	9	8			4	3		
1								
	2		8					5

Medium

6	4			1	8			3
	2			5				
				7		1		
						6		7
	8		2		7		9	
5		9						
		7		8				
				2			3	
2			6	3			7	4

Medium

3				8				6
	1			6		2		
		4	7			5		
	4			1		9		
6			2		4			1
		3		6			5	
		8			3	6		
	2		4				1	
5				2				7

Hard