

Double Up!

Building Fluency: multiply within 100

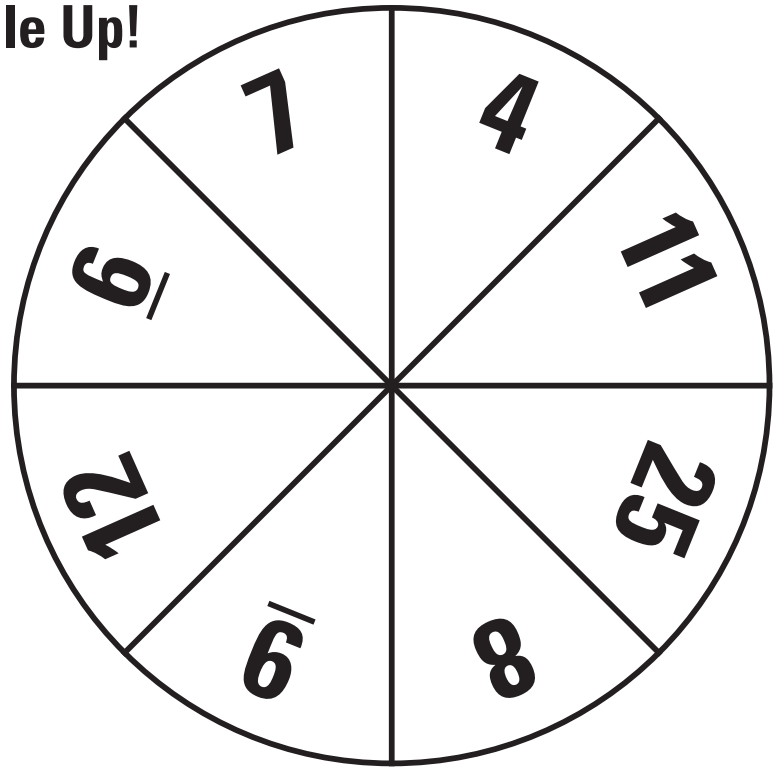
Materials: gameboard, spinner (paper clip and pencil),
8 game markers - different color for each player

Number of Players: 2

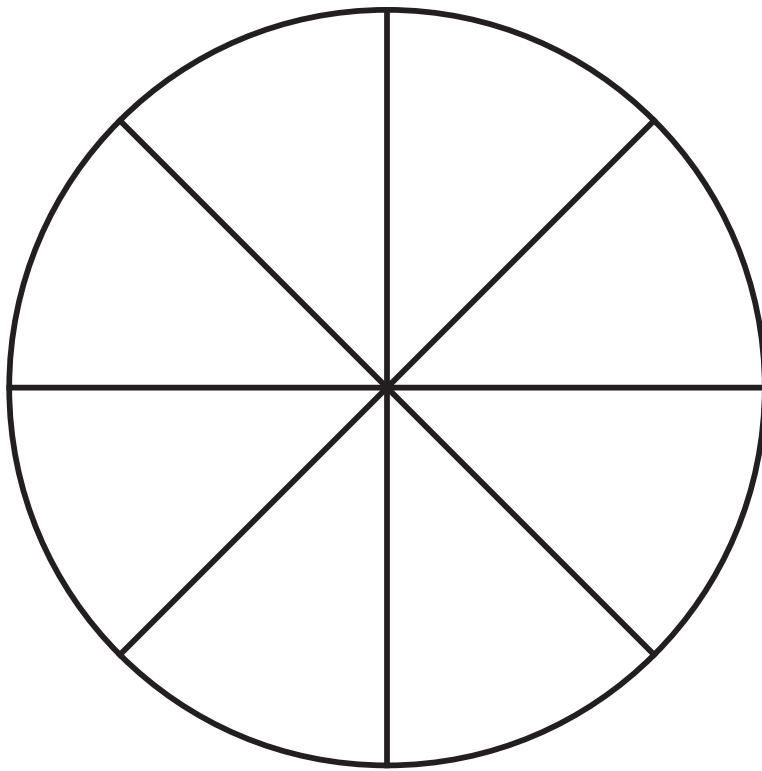
Directions:

1. Spin and double the number (multiply by 2)
2. Cover the product on the gameboard.
3. If the spinner lands on a line, spin again.
4. The first player to cover three products in a row wins.

Variation/Extension: Students create their own spinner game with products, an example might be having players spin two factors and multiply and cover the products on the board.



8	18	12	14	16
16	50	8	50	18
22	14	22	12	24
8	24	12	18	16
50	18	14	24	22



Tic-Tac-Toe Array

Building Fluency: products of whole numbers and their relationship to rectangular arrays

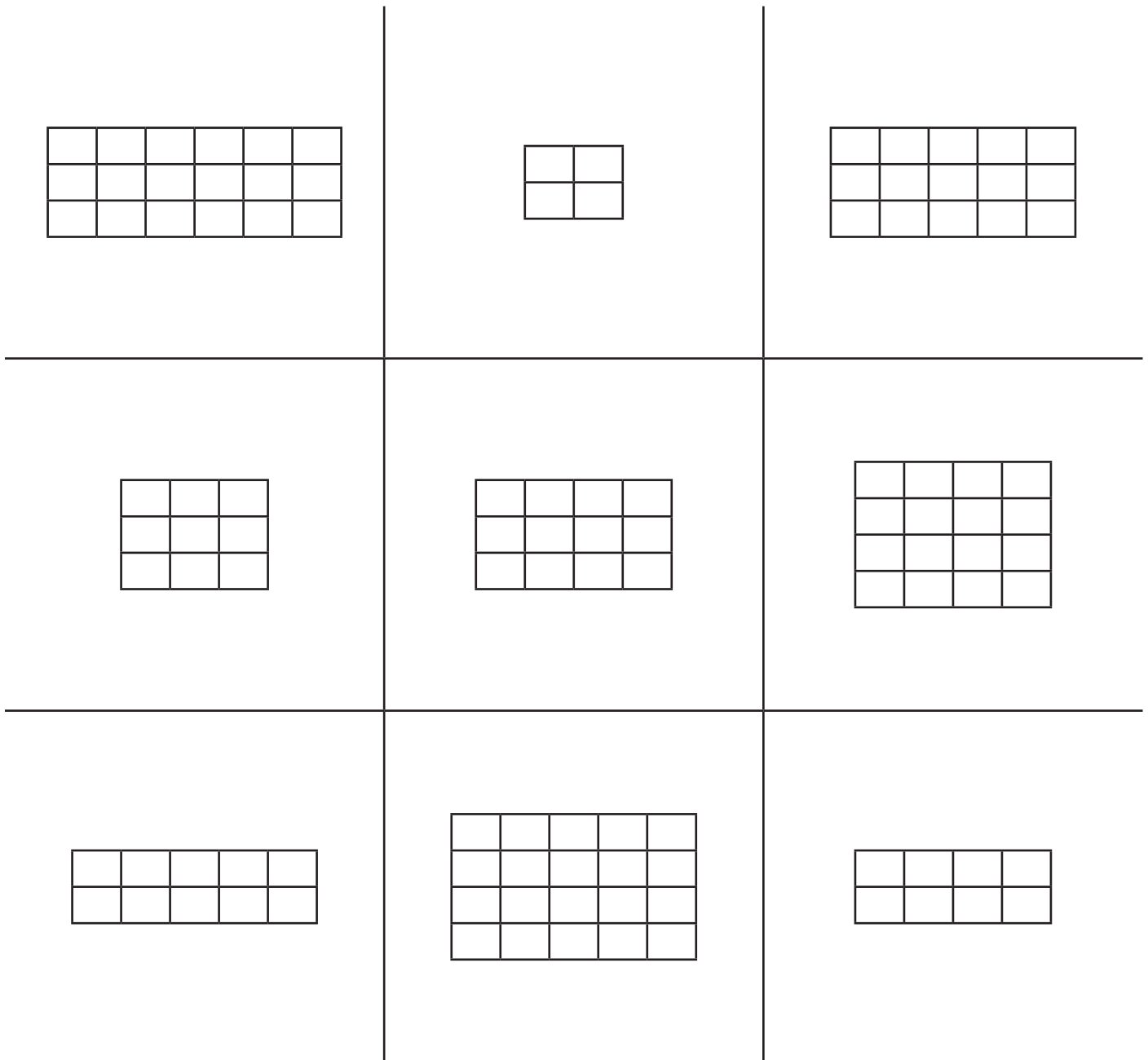
Materials: gameboard, pile of centimeter cubes (at least 20), 5 game markers - different color for each player, a spinner (your choice)

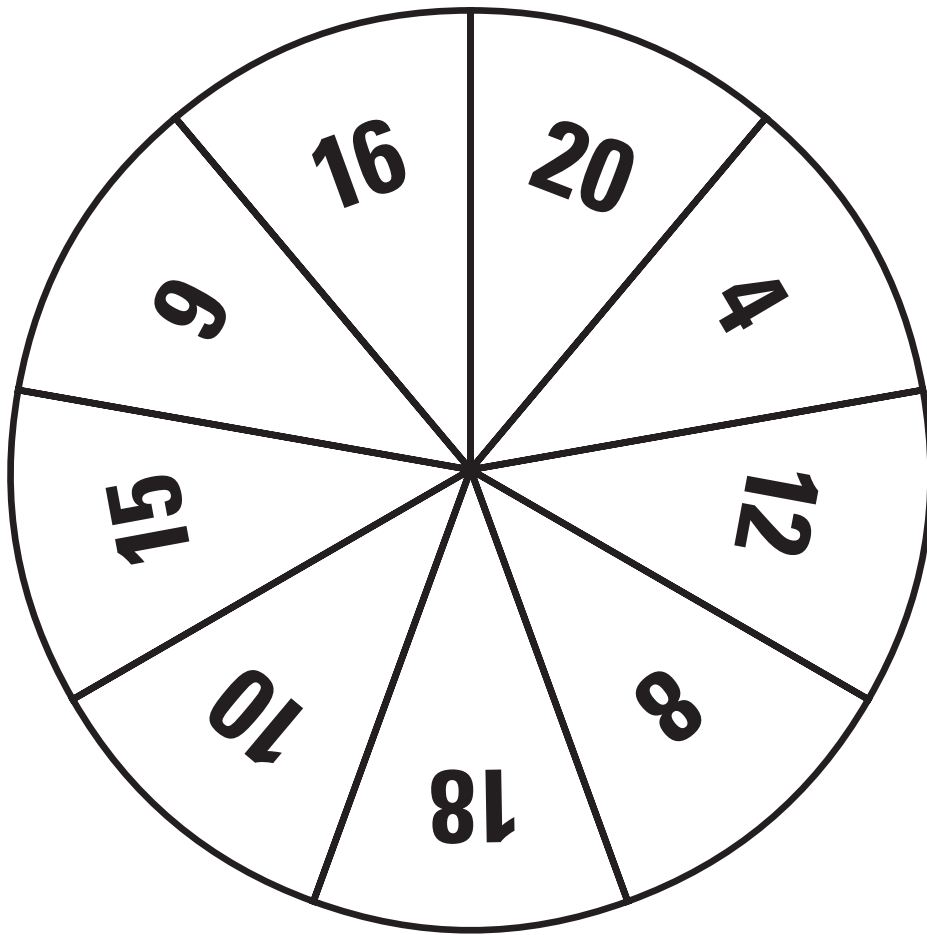
Number of Players: 2

Directions:

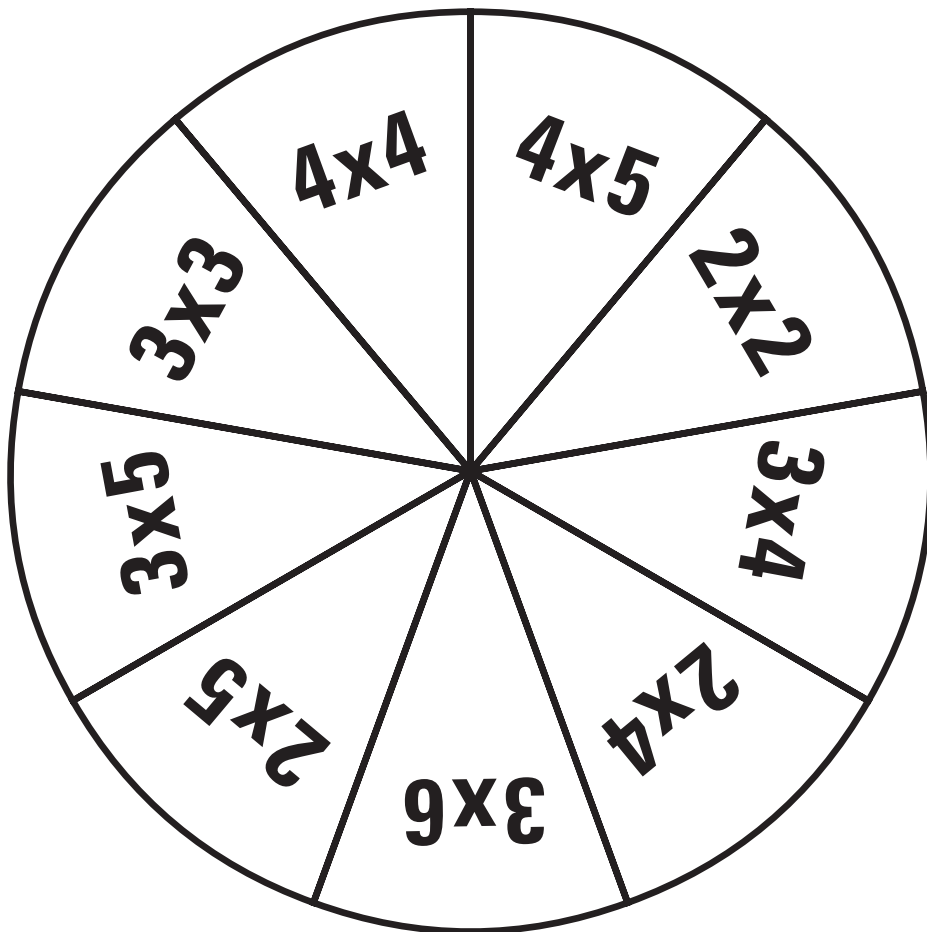
1. Players take turns spinning the spinner. The player takes the number of cubes shown on the spinner.
2. The player uses the cubes to build one of the rectangles shown on the gameboard & says the equation used to build the rectangle.
3. The player puts the cubes back in the pile and places a marker on the rectangle.
4. The winner is the first player to have three markers in a row.

Variation/Extension: Player may win by being the first to cover four adjacent rectangles to form a box. Use the second spinner. Player will multiply and use those dimensions to make the rectangle.





Variation #2
Spinner





Sakes Alive, Go For Fives!!



Building Fluency: multiply within 100

Materials: gameboard, pair of dice, 20 game markers - different color for each player

Number of Players: 2 or 3

Directions:

1. Players take turns rolling dice. Player covers the product or the two factors with game markers.
2. If the player is not able to cover a number, the turn is lost.
3. The first player to cover five squares in a row, vertically, horizontally, or diagonally wins the game.

Variation/Extension: Play a “doubles” variation. When a player cannot play the factors or the product, they may play a double of the product. Example: Player rolls 2 and 5. 10 is not available. Player calls “double” and covers the 20.

24	5	16	3	18	2	20	12	4
4	8	6	12	4	3	25	5	8
18	1	36	4	30	5	24	3	2
12	18	2	5	16	6	1	9	4
25	3	2	20	4	5	3	8	25
5	9	1	15	5	18	6	12	1
8	3	5	4	24	3	2	24	6
2	30	25	6	2	8	4	9	3
15	1	20	9	18	3	6	24	36

Raging Rectangles

Building Fluency: products of whole numbers and their relationship to rectangular arrays; relate area to operations of multiplication

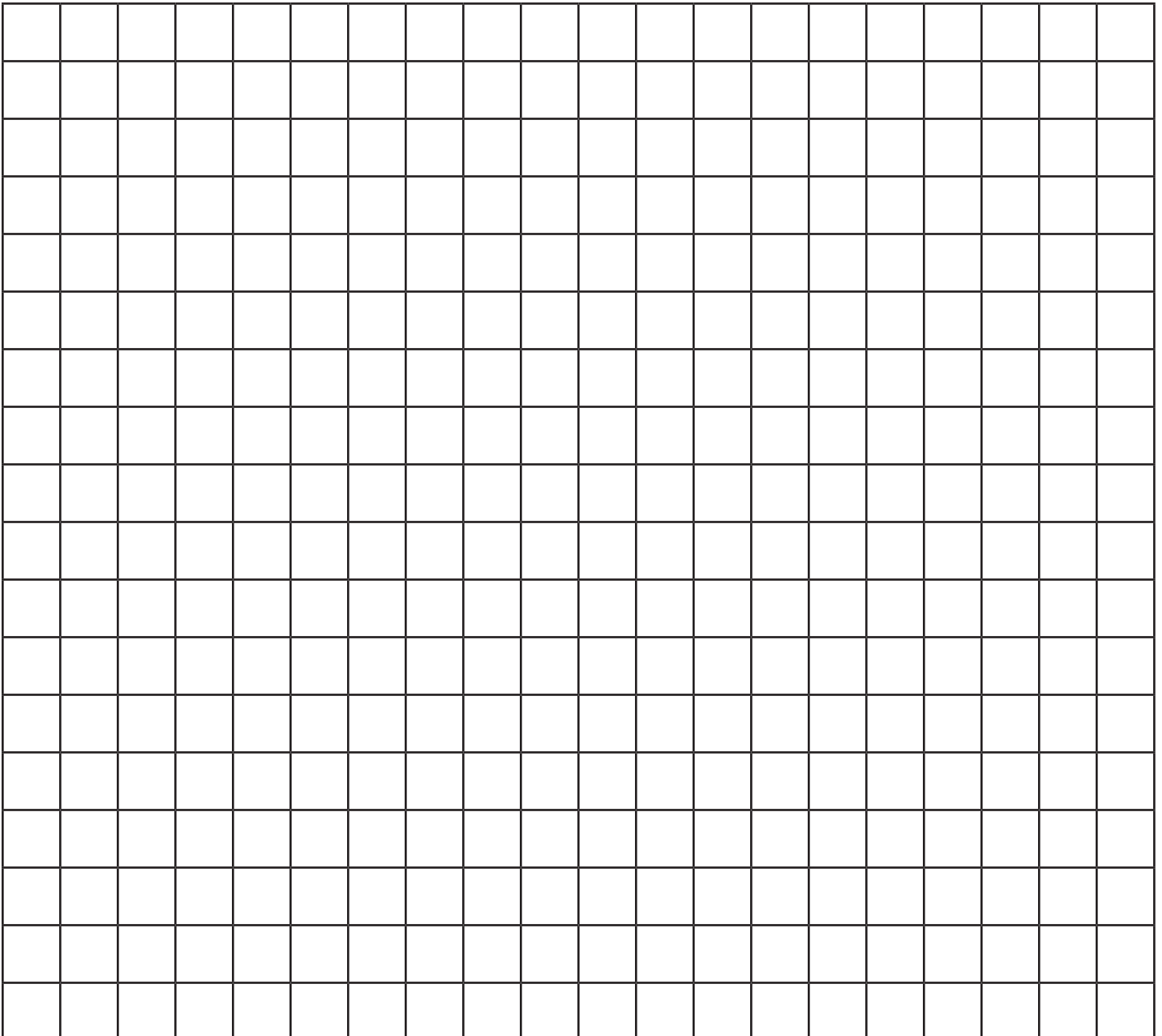
Materials: gameboard, pair of dice, 1 crayon - different color per player

Number of Players: 2

Directions:

1. Each player takes a turn rolling the dice to get two factors.
2. The player outlines and colors a rectangle on the gameboard to match the pair of factors. Example: a roll of 6 and 3 is colored as a 6 x 3 rectangle or a 3 x 6 rectangle.
3. The player writes the equation (area) inside the rectangle.
4. A player loses a turn when the rectangle cannot be drawn on the gameboard.
5. The winner is the player with the most area colored.

Variation/Extension: Students can add the two numbers on the dice for the first factor and then use 2, 5 or 10 as the second factor.



Multiple Madness

Building Fluency: multiply within 100

Materials: gameboard, 8 game markers – different color for each player, 2 paperclips

Number of Players: 2

Directions:

1. The first player places the two paperclips on any factors at the bottom of the page. Both paperclips may be on the same factor.
2. The player covers the product of the two factors with a game marker.
3. The second player moves one of the paperclips then places a game marker on the new product.
4. Players alternate moving a paperclip and marking a product.
5. The winner is the first to cover four products in a row.

Variation/Extension: Multiple Madness II is a variation

1	2	3	4	5	6
8	9	10	12	15	16
20	25	1	2	3	4
5	6	8	9	10	12
15	16	20	25	1	2
3	4	5	6	8	10

FACTORS: **1 2 3 4 5**

Multiple Madness II

Building Fluency: products of whole numbers

Materials: gameboard, 8 game markers – different color for each player, 2 paperclips

Number of Players: 2

Directions:

1. The first player places the two paperclips on any factors at the bottom of the page. Both paperclips may be on the same factor.
2. The player covers the product of the two factors with a game marker.
3. The second player moves one of the paperclips and places a game marker on the new product.
4. Players alternate moving a paperclip and marking a product.
5. The winner is the first to cover four products in a row.

Variation/Extension: Multiple Madness is a variation

1	2	3	4	5	6
7	8	9	10	12	14
15	16	18	20	21	24
25	27	28	30	32	35
36	40	42	45	48	49
54	56	63	64	72	81

FACTORS: 1 2 3 4 5 6 7 8 9

No Leftovers Wanted!

Building Fluency: products of whole numbers and their relationship to rectangular arrays

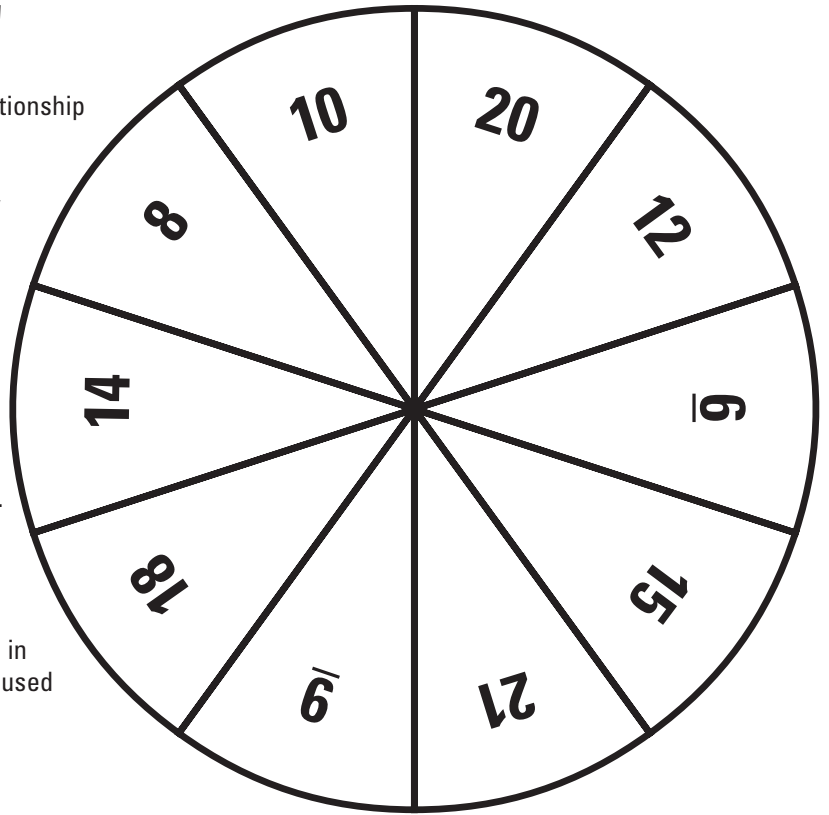
Materials: gameboard, a die, spinner (pencil and paperclip), 21 color tiles, cubes, or counters

Number of Players: 2

Directions:

1. Player spins the spinner and takes that number of counters.
2. Player rolls the die to see how many equal rows will be in the array. Then the player builds the array.
3. The number of counters in one row is the player's score. The player's score is doubled if there are no leftovers.
4. Players record their score after each turn.
5. The winner has the highest score after six rounds.

Variation/Extension: Use the area or number of blocks used in the array to be the score. Use the area or number of blocks used in the array minus the leftovers to be the score.



PLAYER 1

Turn	# of Counters	# of Equal Rows	# in Each Row	# of Leftovers	Score
1					
2					
3					
4					
5					
6					

PLAYER 2

Turn	# of Counters	# of Equal Rows	# in Each Row	# of Leftovers	Score
1					
2					
3					
4					
5					
6					

Whose Winning Products?

Building Fluency: multiply within 100

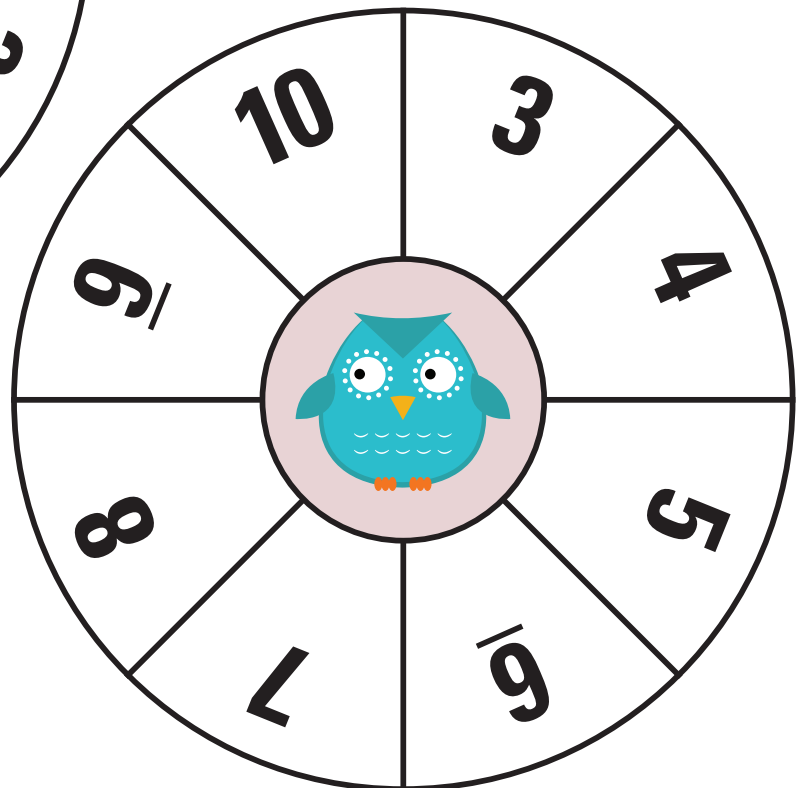
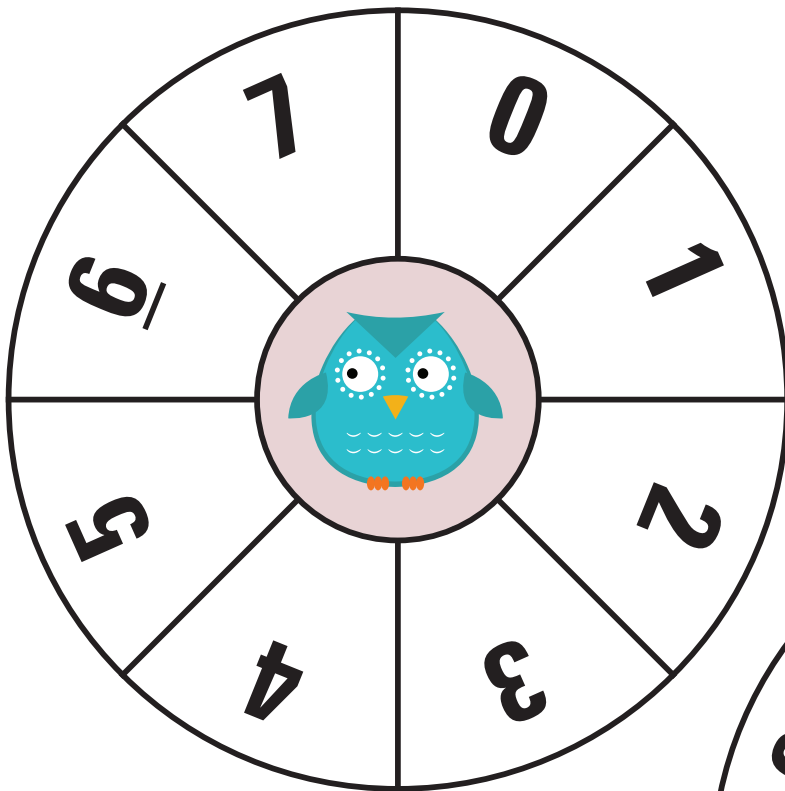
Materials: gameboard for each player, spinners (pencil and paper clip), 25 game markers for each player

Number of Players: any number

Directions:

1. Each player completes their gameboard with possible products.
2. Player 1 spins the spinners to find two factors.
3. Find the product and place game marker on the square on the gameboard.
4. In turn, each player spins and multiplies.
5. All players cover the product if it appears on their gameboards.
6. First player to cover 5 in any direction wins.

Variation/Extension: This could be played with a larger group using a document camera. Place the spinner under the document camera and let players take turns spinning and multiplying.



Murphy to Manteo

Building Fluency: fluently divide within 100

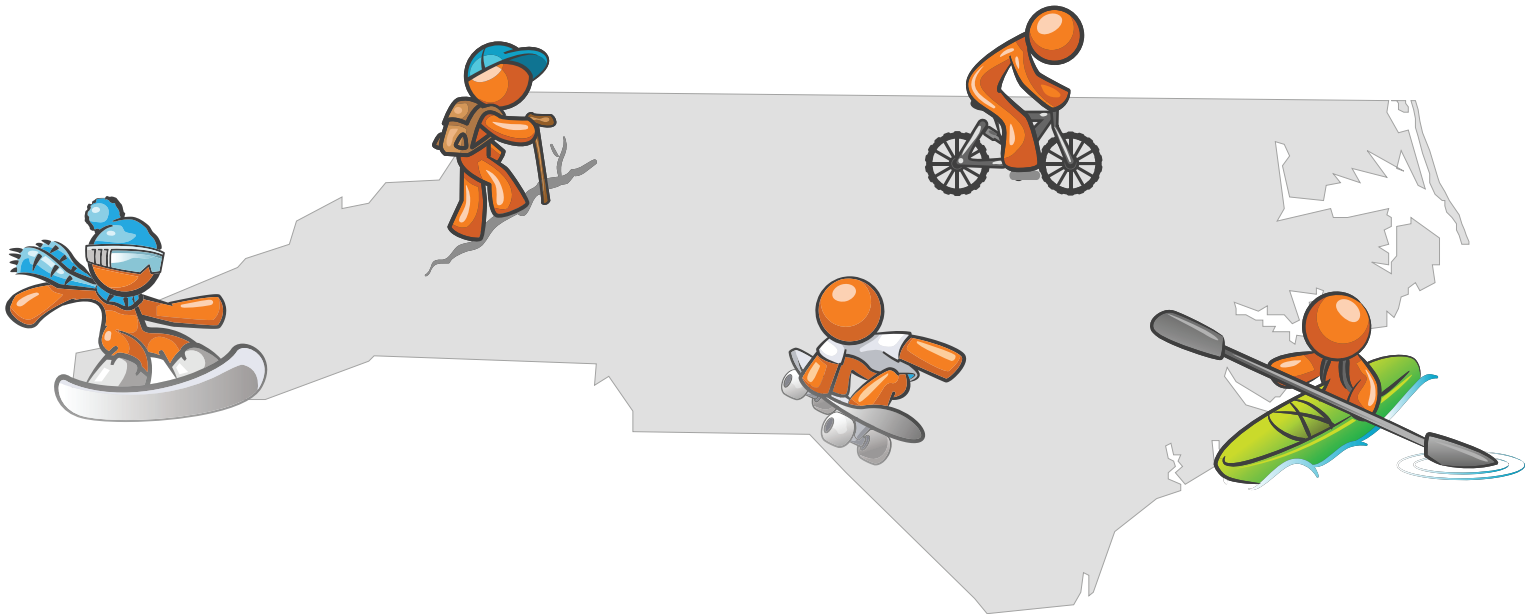
Materials: gameboard, a die, game marker

Number of Players: 2

Directions:

1. Players take turns rolling the die to determine how many spaces to move.
2. Player must give the correct answer in each block before moving forward. If an error is made, the player returns to the starting place for that turn.
3. The first player who crosses the state and gets to Manteo wins.

Variation/Extension: If a player misses a question, the other player may answer it correctly and receive a pass for the next penalty space (go back or lose a turn). For some students, teachers may want to provide a division chart or a calculator to resolve arguments about answers.



Out of this World Operations!



Building Fluency: addition, subtraction, multiplication and division

Materials: an operation card per player, and a set of game cards

Number of Players: 4

Directions:

1. Each of the 4 players chooses an operation card.
2. Each player takes turn selecting and reading the game cards.
3. The player with the correct operation to solve the equation takes the card and records it on their recording sheet.
4. The first player to record and collect 10 cards wins.

Variation/Extension: Once students understand the game then they can record they work in their math notebook. This could be played with 1 or 2 players as a sorting game.

OPERATION CARD ADDITION (+)

	Equation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

OPERATION CARD SUBTRACTION (-)

	Equation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

OPERATION CARD MULTIPLICATION (x)

	Equation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

OPERATION CARD DIVISION (÷)

	Equation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

X**+****-**

$48 \ ? \ 6 = 8$

$8 \ ? \ 4 = 32$

 \div

$6 \ ? \ 8 = 48$

$8 \ ? \ 6 = 2$

$3 \ ? \ 8 = 24$

$8 \ ? \ 4 = 12$

$7 \ ? \ 7 = 0$

$8 \ ? \ 4 = 4$

$7 \ ? \ 7 = 14$

$7 \ ? \ 7 = 49$

$8 \ ? \ 1 = 8$

$16 \ ? \ 2 = 8$

$8 \ ? \ 2 = 16$

$8 \ ? \ 1 = 9$

$5 ? 4 = 20$

$6 ? 2 = 12$

$6 ? 8 = 14$

$6 ? 2 = 8$

$6 ? 2 = 4$

$32 ? 4 = 8$

$36 ? 6 = 6$

$6 ? 6 = 12$

$8 ? 8 = 0$

$6 ? 6 = 0$

$24 ? 6 = 4$

$8 ? 8 = 1$

$21 ? 3 = 7$

$5 ? 4 = 9$

$5 ? 4 = 1$

$8 ? 7 = 1$

$6 ? 2 = 12$

$20 ? 5 = 4$

$$7 \times 3 = 21$$

$$8 \times 7 = 15$$

$$56 \div 8 = 7$$

$$7 \times 4 = 3$$

$$7 \times 3 = 10$$

$$8 \times 7 = 15$$

$$9 \times 8 = 1$$

$$8 \times 9 = 17$$

$$9 \times 2 = 7$$

$$2 \times 9 = 18$$

$$9 \times 4 = 5$$

$$8 \times 9 = 72$$

$$8 \times 7 = 56$$

$$6 \times 6 = 1$$

$$4 \times 6 = 2$$

$$18 \div 2 = 9$$

$$6 \div 4 = 10$$

$$6 \div 4 = 2$$

$12 \div 2 = 6$

$6 \times 6 = 36$

$9 \times 5 = 45$

$9 \div 7 = 2$

$45 \div 9 = 5$

$7 \times 2 = 14$

$7 \times 2 = 14$

$6 \times 5 = 30$

$6 \div 5 = 1$

$6 \times 5 = 30$

$30 \div 6 = 5$

$6 \div 3 = 2$

$5 \times 5 = 25$

$5 \times 5 = 25$

$5 \times 3 = 15$

$25 \div 5 = 5$

$5 \times 5 = 25$

$18 \div 3 = 6$

$2 ? 9 = 11$

$9 ? 4 = 13$

$72 ? 9 = 8$

$9 ? 7 = 16$

$5 ? 9 = 45$

$9 ? 5 = 4$

$63 ? 7 = 9$

$5 ? 3 = 8$

$9 ? 7 = 63$

$7 ? 2 = 14$

$6 ? 3 = 9$

$49 ? 7 = 7$

$14 ? 2 = 7$

$6 ? 7 = 42$

$6 ? 7 = 13$

$15 ? 3 = 5$

$42 ? 6 = 7$

$7 ? 6 = 1$

$8 ? 5 = 3$

$7 ? 5 = 12$

$42 ? 6 = 7$

$40 ? 8 = 5$

$8 ? 3 = 5$

$3 ? 8 = 11$

$8 ? 2 = 6$

$8 ? 2 = 10$

$5 ? 8 = 13$

$5 ? 8 = 40$

$24 ? 3 = 8$

$9 ? 6 = 3$

$8 ? 8 = 16$

$6 ? 9 = 15$

$36 ? 9 = 4$

$54 ? 9 = 6$

$8 ? 8 = 0$

$4 ? 9 = 36$

$$6 ? 9 = 54$$

$$7 ? 7 = 1$$

$$7 ? 5 = 35$$

$$8 ? 8 = 1$$

Find the Unknown Number

Building Fluency: understand division as an unknown factor problem

Materials: a recording sheet for each player, unknown number game cards

Number of Players: 2

Directions:

1. Spread out the missing number game cards.
2. Players take turns picking a card and telling the unknown number.
3. The player keeps all cards correctly answered & writes the equation as both a multiplication & division equation on their recording sheet.

Example: $4 \times \boxed{7} = 28$; $28 \div 4 = \boxed{7}$

4. If the player answers incorrectly, the card is placed back in the pile.
5. Play until all cards are picked and the player with the most cards wins.

Variation/Extension: When a player misses a question, the other player may answer correctly and keep the card. This game could be played by an individual just picking and recording equations. A multiplication chart may be needed to solve any disagreements.

PLAYER 1

Multiplication	Division
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

PLAYER 2

Multiplication	Division
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

$1 \times \underline{\quad} = 5$

$1 \times \underline{\quad} = 4$

$1 \times \underline{\quad} = 3$

$1 \times \underline{\quad} = 2$

$2 \times \underline{\quad} = 10$

$2 \times \underline{\quad} = 8$

$2 \times \underline{\quad} = 6$

$2 \times \underline{\quad} = 4$

$3 \times \underline{\quad} = 15$

$3 \times \underline{\quad} = 12$

$3 \times \underline{\quad} = 9$

$3 \times \underline{\quad} = 6$

$4 \times \underline{\quad} = 20$

$4 \times \underline{\quad} = 16$

$4 \times \underline{\quad} = 12$

$4 \times \underline{\quad} = 8$

$5 \times \underline{\quad} = 25$

$5 \times \underline{\quad} = 20$

$5 \times \underline{\quad} = 15$

$5 \times \underline{\quad} = 10$

$1 \times \underline{\quad} = 9$

$1 \times \underline{\quad} = 8$

$1 \times \underline{\quad} = 7$

$1 \times \underline{\quad} = 6$

$2 \times \underline{\quad} = 18$

$2 \times \underline{\quad} = 16$

$2 \times \underline{\quad} = 14$

$2 \times \underline{\quad} = 12$

$3 \times \underline{\quad} = 27$

$3 \times \underline{\quad} = 24$

$3 \times \underline{\quad} = 21$

$3 \times \underline{\quad} = 18$

$1 \times \underline{\quad} = 10$

$3 \times \underline{\quad} = 30$

$6 \times \underline{\quad} = 18$

$6 \times \underline{\quad} = 12$

$2 \times \underline{\quad} = 20$

$4 \times \underline{\quad} = 40$

$5 \times \underline{\quad} = 50$

$7 \times \underline{\quad} = 14$

$4 \times \underline{\quad} = 36$

$4 \times \underline{\quad} = 32$

$4 \times \underline{\quad} = 28$

$4 \times \underline{\quad} = 24$

$5 \times \underline{\quad} = 45$

$5 \times \underline{\quad} = 40$

$5 \times \underline{\quad} = 35$

$5 \times \underline{\quad} = 30$

$7 \times \underline{\quad} = 70$

$7 \times \underline{\quad} = 63$

$7 \times \underline{\quad} = 56$

$7 \times \underline{\quad} = 49$

$8 \times \underline{\quad} = 80$

$8 \times \underline{\quad} = 72$

$8 \times \underline{\quad} = 64$

$8 \times \underline{\quad} = 56$

$9 \times \underline{\quad} = 90$

$9 \times \underline{\quad} = 81$

$9 \times \underline{\quad} = 72$

$9 \times \underline{\quad} = 63$

$10 \times \underline{\quad} = 100$

$10 \times \underline{\quad} = 90$

$10 \times \underline{\quad} = 80$

$10 \times \underline{\quad} = 70$

$7 \times \underline{\quad} = 42$

$7 \times \underline{\quad} = 35$

$7 \times \underline{\quad} = 28$

$7 \times \underline{\quad} = 21$

$8 \times \underline{\quad} = 48$

$8 \times \underline{\quad} = 40$

$8 \times \underline{\quad} = 32$

$8 \times \underline{\quad} = 24$

$9 \times \underline{\quad} = 54$

$9 \times \underline{\quad} = 45$

$9 \times \underline{\quad} = 36$

$9 \times \underline{\quad} = 27$

$10 \times \underline{\quad} = 60$

$10 \times \underline{\quad} = 50$

$10 \times \underline{\quad} = 40$

$10 \times \underline{\quad} = 30$

$$6 \times \underline{\quad} = 54$$

$$6 \times \underline{\quad} = 48$$

$$6 \times \underline{\quad} = 42$$

$$6 \times \underline{\quad} = 36$$

$$6 \times \underline{\quad} = 30$$

$$6 \times \underline{\quad} = 24$$

$$10 \times \underline{\quad} = 20$$

$$8 \times \underline{\quad} = 16$$

$$6 \times \underline{\quad} = 60$$

$$9 \times \underline{\quad} = 18$$

Charlotte Speedway Race

Building Fluency: fluently multiply within 100

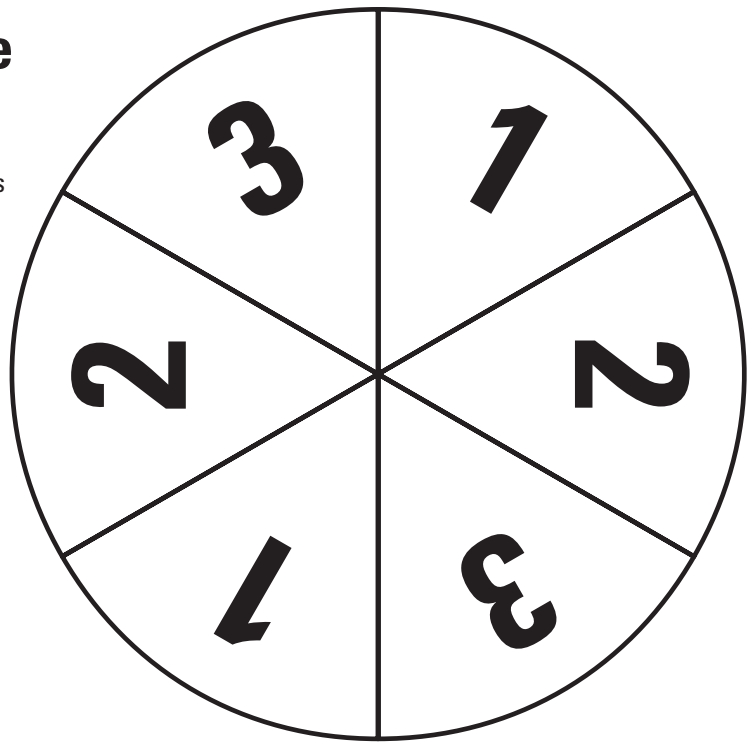
Materials: gameboard, spinner (paperclip and pencil), game markers

Number of Players: 2

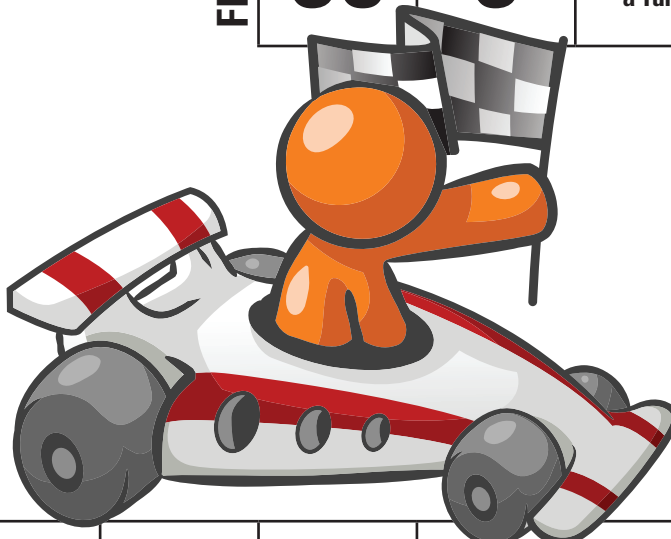
Directions:

1. Each player takes a turn and spins the spinner.
2. Move the number of spaces shown on the spinner.
3. Player must give a multiplication fact for the product in the space using 2 or 5 as one of the factors.
4. If an incorrect answer is given, the player loses the turn and returns to the previous position.
5. The winner is the first to cross the finish line.

Variation/Extension: A player may tell a second factor pair to make that product and move an extra space.



0	PIT STOP	24	25	15	30	18	20	START
55								
14		FINISH	60	6	Stop for Gas – Lose a Turn	45	12	4
2								30
	Trouble on the Curve – Go Back 2 Spaces							Car Stalls – Lose a Turn
35								50
10	15	20	16	Your Tire Blows Out – Lose a Turn	35	40	8	18



Division Duel

Building Fluency: division within 100

Materials: gameboard, division cards, game markers (small cube)

Number of Players: 2

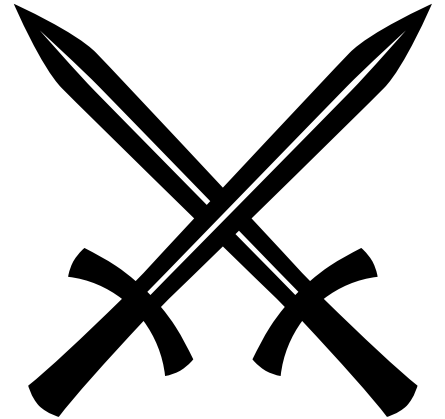
Directions:

1. Place the cards face down in the center of the gameboard.
2. Each player takes a card from the stack and answers the problem.
3. The winner of the round is the player whose answer is the larger number.
4. The winner places the marker on the number grid at the bottom of the gameboard and moves the marker each time a point is scored.
5. The champion is the first player to win 14 rounds.

Variation/Extension: Students could make card sets with the division facts they most need to work on.



Place Division
Cards Face
Down Here



PLAYER 1

1	2	3	4	5	6	7
8	9	10	11	12	13	14

PLAYER 2

1	2	3	4	5	6	7
8	9	10	11	12	13	14

$$8 \overline{) 48}$$

$$8 \overline{) 24}$$

$$6 \overline{) 36}$$

$$4 \overline{) 32}$$

$$6 \overline{) 42}$$

$$9 \overline{) 63}$$

$$3 \overline{) 24}$$

$$7 \overline{) 35}$$

$$9 \overline{) 81}$$

$$9 \overline{) 36}$$

$$8 \overline{) 72}$$

$$5 \overline{) 30}$$

$$9 \overline{) 54}$$

$$8 \overline{) 56}$$

$$5 \overline{) 40}$$

$$9 \overline{) 27}$$

$$8 \overline{) 40}$$

$$6 \overline{) 48}$$

$$6 \overline{) 54}$$

$$6 \overline{) 24}$$

$$9 \overline{) 45}$$

$$6 \overline{) 30}$$

$$7 \overline{) 56}$$

$$7 \overline{) 28}$$

$$4 \overline{) 24}$$

$$8 \overline{) 64}$$

$$8 \overline{) 32}$$

$$7 \overline{) 49}$$

$$5 \overline{) 35}$$

$$7 \overline{) 42}$$

$$4 \overline{) 28}$$

$$9 \overline{) 72}$$

$$4 \overline{) 36}$$

$$7 \overline{) 63}$$

$$3 \overline{) 27}$$

$$5 \overline{) 45}$$

Four Quotients

Building Fluency: division within 100

Materials: gameboard, pair of dice, division grid, 15 game markers - different color for each player,

Number of Players: 2

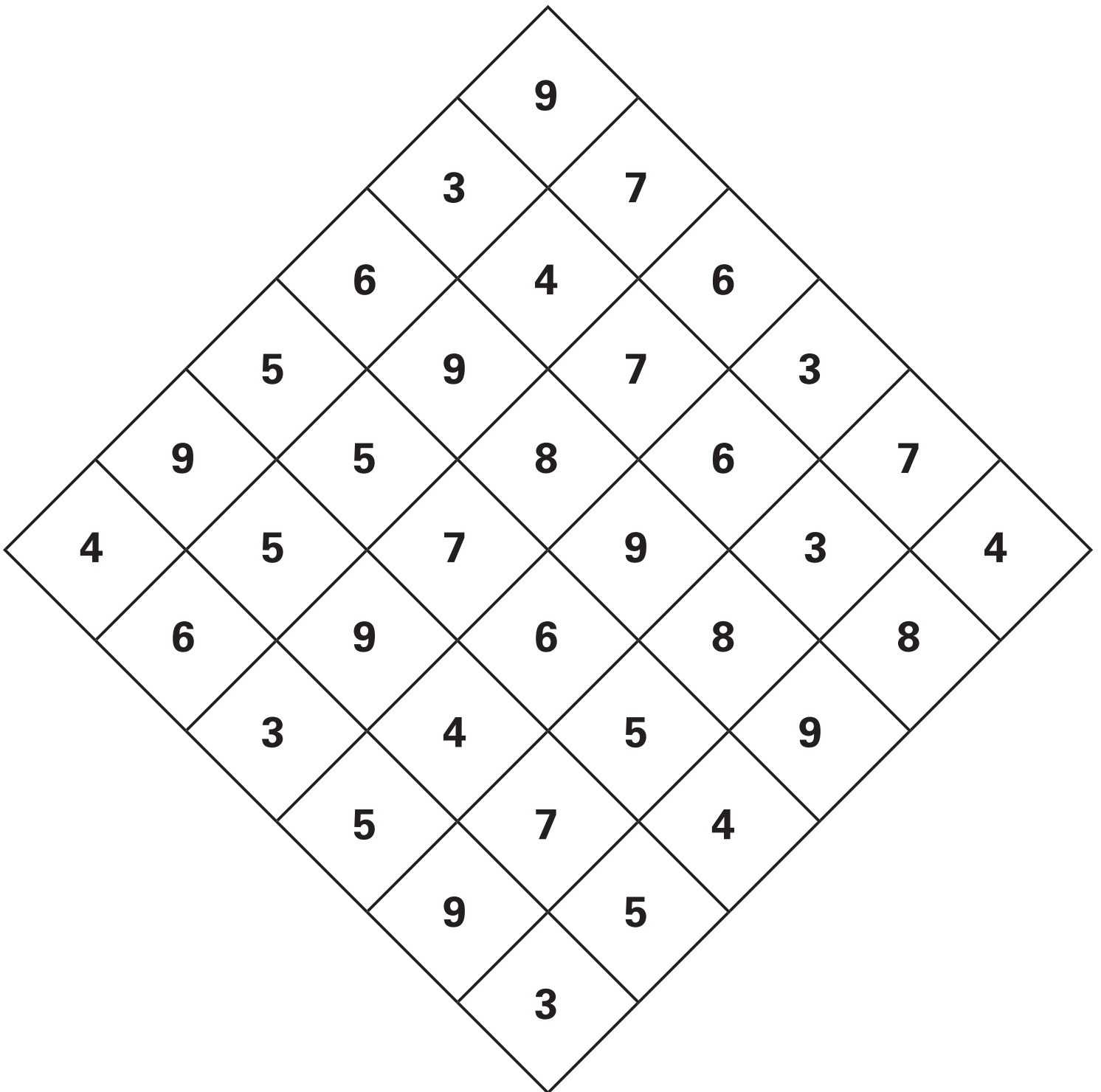
Directions:

1. Player rolls the pair of dice and locates the spaces on the grid named by them.
Example: A roll of a 3 and a 5 could be space (3,5) or space (5,3).
2. The player answers the division problem and places a game marker on that number on the gameboard.
3. The first player to get 4 spaces in a row is the winner.

Variation/Extension: Players could pick a space on the gameboard and give a division fact to match it in order to place a marker on the board. Example: I pick 7. $42 \div 6 = 7$. The winner could fill an entire row.

	1	2	3	4	5	6
1	$8 \overline{)48}$	$8 \overline{)24}$	$6 \overline{)36}$	$6 \overline{)54}$	$6 \overline{)24}$	$9 \overline{)45}$
2	$4 \overline{)32}$	$6 \overline{)42}$	$9 \overline{)63}$	$6 \overline{)30}$	$7 \overline{)56}$	$7 \overline{)28}$
3	$3 \overline{)24}$	$7 \overline{)35}$	$9 \overline{)81}$	$4 \overline{)24}$	$8 \overline{)64}$	$8 \overline{)32}$
4	$9 \overline{)36}$	$8 \overline{)72}$	$5 \overline{)30}$	$7 \overline{)49}$	$5 \overline{)35}$	$7 \overline{)42}$
5	$9 \overline{)54}$	$8 \overline{)56}$	$5 \overline{)40}$	$4 \overline{)28}$	$9 \overline{)72}$	$4 \overline{)36}$
6	$9 \overline{)27}$	$8 \overline{)40}$	$6 \overline{)48}$	$7 \overline{)63}$	$3 \overline{)27}$	$5 \overline{)45}$

Four Quotients



Race to the Resort

Building Fluency: division within 100

Materials: a die, gameboard, a game marker – different color for each player

Number of Players: 2

Directions:

1. Players take turns rolling a die and move that many spaces answering all of the facts along the way. If the player misses a fact, the player returns to the previous position.
2. If a player lands on the same space as the other player, the other player goes back to the beginning. The winner is the first to finish the game.

Variation/Extension: If a player misses an equation, the other player may answer it correctly and receive a pass for the next time they land on a penalty space.

START

$$6 \overline{)42}$$

$$9 \overline{)72}$$

$$64 \div 4$$

**Out of Gas:
Lose a Turn**

$$3 \overline{)36}$$

$$64 \div 8$$

**No Wind:
Move Back
3 Spaces**

$$4 \overline{)28}$$

$$7 \overline{)49}$$

$$48 \div 6$$

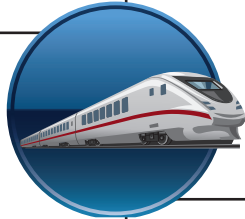
$$54 \div 9$$



$$5 \overline{)35}$$

$$24 \div 8$$

$$49 \div 7$$



$$6 \overline{)30}$$

$$36 \div 9$$

YOU WIN!!

**Low on Fuel:
Lose a Turn**

$$20 \div 5$$

**Bonus:
Move Ahead
1 Space**

$$9 \overline{)81}$$

$$10 \overline{)100}$$



$$6 \overline{)18}$$

$$4 \overline{)32}$$

$$56 \div 8$$

$$4 \overline{)36}$$

$$5 \overline{)25}$$

**Flat Tire:
Lose a Turn**

$$16 \div 4$$

**Stormy Seas:
Move Back
2 Spaces**

$$24 \div 4$$

$$6 \overline{)42}$$

$$48 \div 8$$

$$3 \overline{)15}$$

$$8 \overline{)72}$$

**Ship Ran
Aground:
Move Back
3 Spaces**