

**box cars and one-eyed jacks**

**TGIF - THANK  
GOODNESS IT'S FUN!  
Math Games for Grades 3-6**

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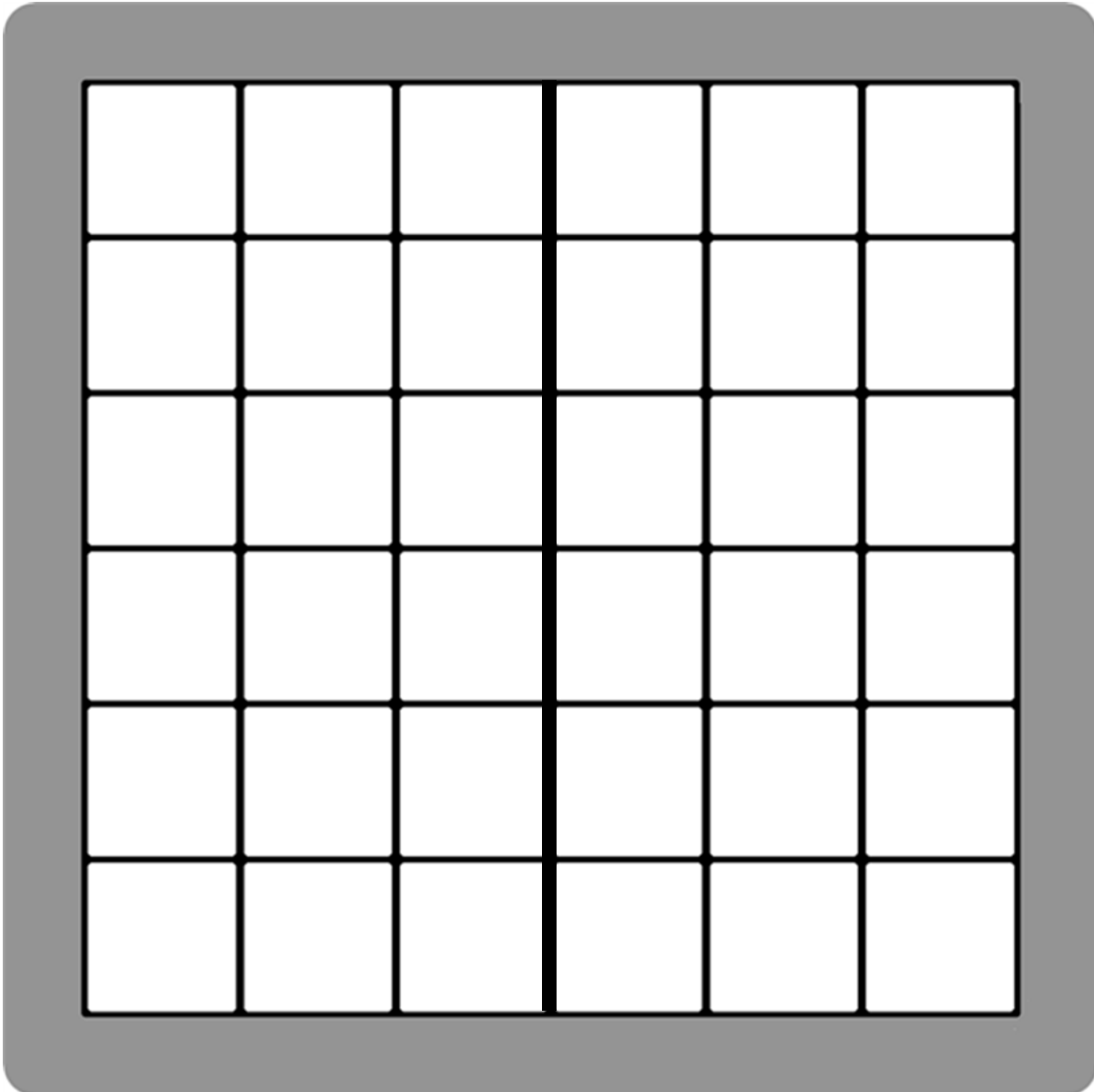
 [BoxCarsEduc](https://twitter.com/BoxCarsEduc)

 [BoxcarsEducation](https://www.youtube.com/BoxcarsEducation)

# WARP 18

PLAYER  
ONE

PLAYER  
TWO

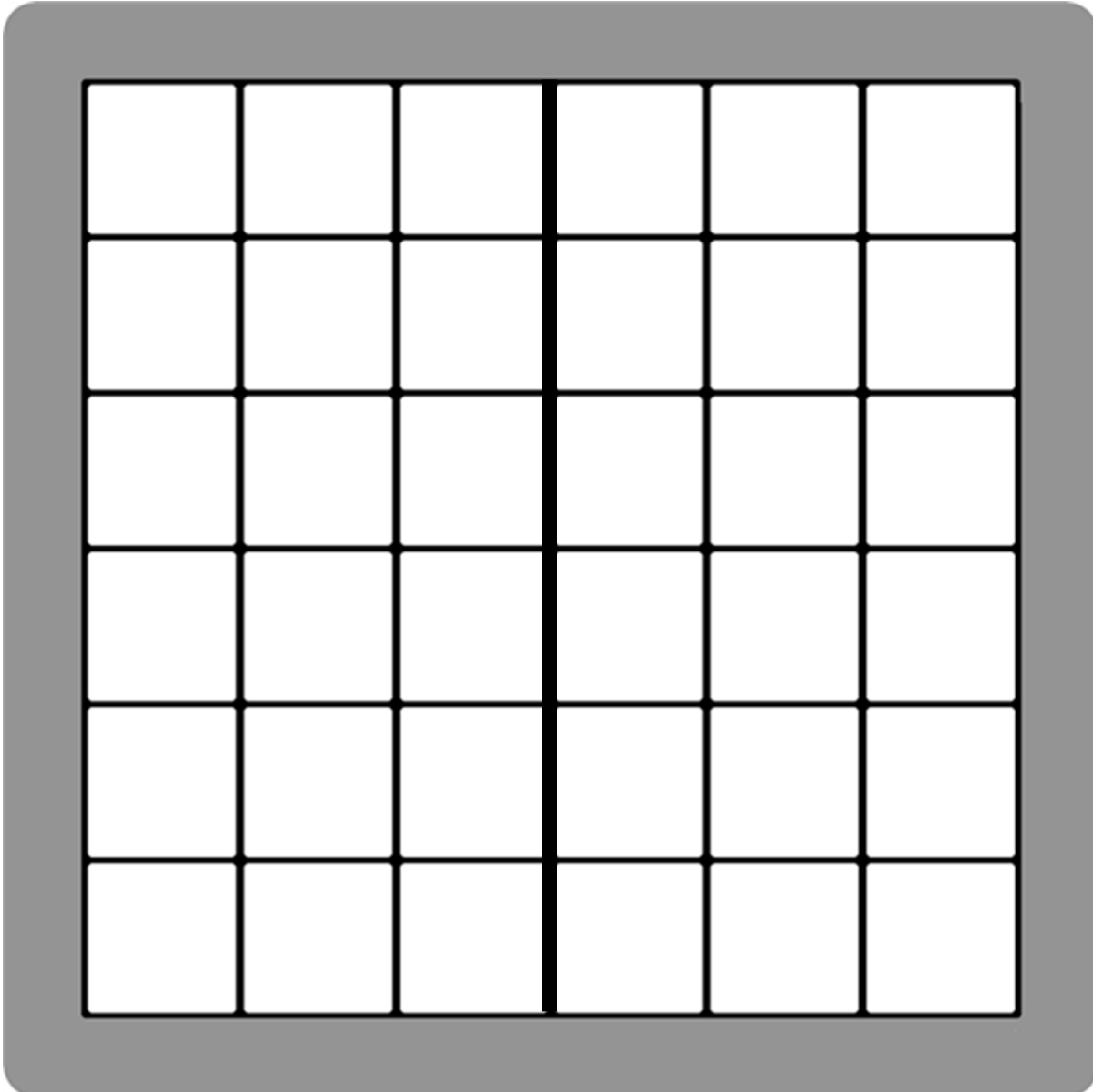


- ▶ Explore Associative Property of Addition.
- ▶ Each player takes 18 dice of their own color.
- ▶ Each player rolls 3 dice and adds.
- ▶ Player with the greatest sum places them into their side of the tray, least sum places in lid.
- ▶ Players need to verbalize how they calculated sums.
- ▶ Player with the most dice in their side of the tray at the end of the game wins.

# 36 / 72 SLAM DUNK

PLAYER  
ONE

PLAYER  
TWO



- ▶ Each player takes 18 dice of own color.
- ▶ Each player rolls 2 or 3 dice, multiplies.
- ▶ Player with greatest product places them into their side of the tray, least product places in lid.
- ▶ Player with the most dice in their side of the tray at the end of the game wins.

# SALUTE

Box Cars "All Hands On Deck" Mystery Number (adapted)

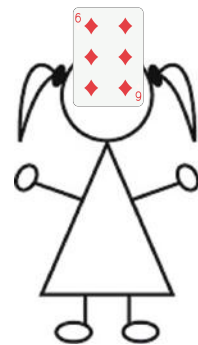
**Concepts: Missing Addend, Factor**

**Equipment: Cards 0-12 (J=11 Q=12 K=0)**

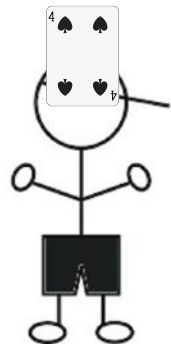
**Goal/Object: Figure Out value of the card on your head**

Usually 3 players with one player taking the role of "General". The General says "salute". The other two players take the card from the top of their deck and **WITHOUT LOOKING AT IT** place it on their forehead so everyone else can see what the card on their forehead is. The General adds the two cards together and says:

"The sum of your two cards is...."



PLAYER ONE



PLAYER TWO

The two players then use the sum and the card they can see on their opponent's forehead to try and figure out their own card.

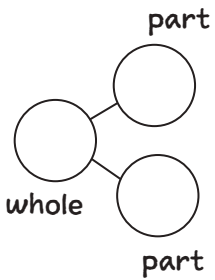
**Variations: (1) Multiplication (take out 0s)**

**4 Players (one General, 3 soldiers)**

**Red = neg integers / Black = pos integers**

# SALUTE SIGNS AND SYMBOLS + / -

choose 3 Salute rounds to record

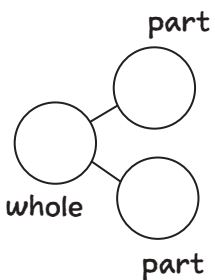


_____	+	_____	=	_____
_____	+	_____	=	_____
_____	=	_____	+	_____
_____	=	_____	+	_____
_____	-	_____	=	_____
_____	-	_____	=	_____

Vocabulary: addend, sum, minuend, subtrahend, difference

# SALUTE SIGNS AND SYMBOLS x / ÷

choose 3 Salute rounds to record



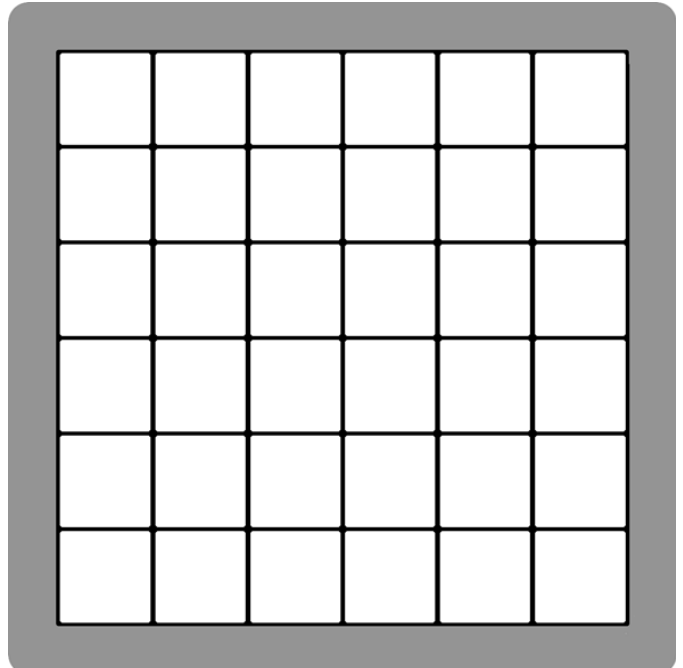
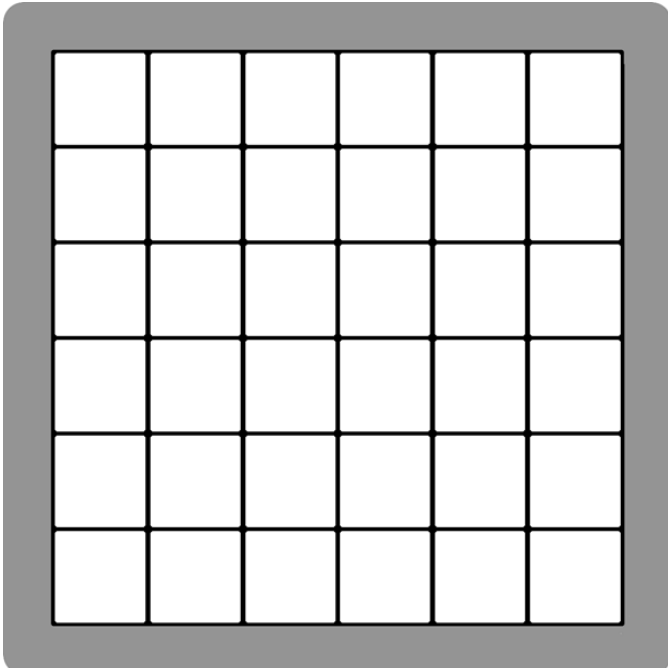
_____	x	_____	=	_____
_____	x	_____	=	_____
_____	=	_____	x	_____
_____	=	_____	x	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____

Vocabulary: factor, product, divisor, dividend, quotient



What did you see?  
What did you notice?

# PRIMARY SUPER MUSH



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Object of the Game: Get all the dice into the tray with no dice leftover.

Preparation: Partners "Super Mush" the dice for about 10-15 seconds, thoroughly mixing them. Next, partners choose a "Target Number" (randomly / by rolling a die / flipping over a card).

How to Play: Partners work together and use 2, 3, 4 or 5 dice to create a math sentence that equals the target number. They put the dice into the tray. Partners again use between 2 to 5 dice to create another math sentence that equals the target number and place those dice into the tray as well. Partners continue to select dice to make math sentences until all the dice are in the tray or until they can't make a math sentence that equals the target.

# MAKE A TEN SHAKERS RECORDING SHEET

SEE	+	?	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10

SEE	+	?	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
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<input type="text"/>	+	<input type="text"/>	=	10

SEE	+	?	=	10
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<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10

SEE	+	?	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
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<input type="text"/>	+	<input type="text"/>	=	10
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SEE	+	?	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
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<input type="text"/>	+	<input type="text"/>	=	10
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SEE	+	?	=	10
<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10
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<input type="text"/>	+	<input type="text"/>	=	10
<input type="text"/>	+	<input type="text"/>	=	10

# POWERFUL TENS "MENTAL MATH" RECORDING SHEET

<input type="text"/>	$\times 10^6$	=	_____
<input type="text"/>	$\times 10^5$	=	_____
<input type="text"/>	$\times 10^4$	=	_____
<input type="text"/>	$\times 10^3$	=	_____
<input type="text"/>	$\times 10^2$	=	_____
<input type="text"/>	$\times 10^1$	=	_____
<input type="text"/>	$\times 10^0$	=	_____

<input type="text"/>	$\times 10^6$	=	_____
<input type="text"/>	$\times 10^5$	=	_____
<input type="text"/>	$\times 10^4$	=	_____
<input type="text"/>	$\times 10^3$	=	_____
<input type="text"/>	$\times 10^2$	=	_____
<input type="text"/>	$\times 10^1$	=	_____
<input type="text"/>	$\times 10^0$	=	_____

<input type="text"/>	$\times 10^6$	=	_____
<input type="text"/>	$\times 10^5$	=	_____
<input type="text"/>	$\times 10^4$	=	_____
<input type="text"/>	$\times 10^3$	=	_____
<input type="text"/>	$\times 10^2$	=	_____
<input type="text"/>	$\times 10^1$	=	_____
<input type="text"/>	$\times 10^0$	=	_____

<input type="text"/>	$\times 10^6$	=	_____
<input type="text"/>	$\times 10^5$	=	_____
<input type="text"/>	$\times 10^4$	=	_____
<input type="text"/>	$\times 10^3$	=	_____
<input type="text"/>	$\times 10^2$	=	_____
<input type="text"/>	$\times 10^1$	=	_____
<input type="text"/>	$\times 10^0$	=	_____

What do you see?

What do you notice?



# 100's, 10's AND 1's HORSE RACE

PLAYER  
ONE

PLAYER  
TWO

HUNDREDS

TENS

ONES

HUNDREDS

TENS

ONES


# ROLL ON PLACE VALUE

		HUNDRED THOUSANDS	TEN THOUSANDS	THOUSANDS	HUNDREDS	TENS	ONES
ROUND ONE	PLAYER ONE						
	PLAYER TWO						
ROUND TWO	PLAYER ONE						
	PLAYER TWO						
ROUND THREE	PLAYER ONE						
	PLAYER TWO						

The goal of the game is to create the largest number. Players take turns rolling a die, placing it into the tray and announcing its place value for that roll. After 6 rolls, players compare numbers. A point is earned by the player with the largest number. A Place Value Systems die is rolled to identify a specific place value (for example 100's). A second point is earned by the player with the highest place value in that place. A third "upside down bonus point" is awarded to the player with the biggest number when the tray is rotated 180 degrees and the numbers are compared.

# ROCK & ROLL

ROLL REGULAR DICE TO BUILD PLACE VALUE AS FOLLOWS

2 DICE:									TENS / ONES
3 DICE:									HUNDREDS / TENS / ONES
4 DICE:									THOUSANDS / HUNDREDS / TENS / ONES
5 DICE:									TEN THOUSANDS / THOUSANDS / HUNDREDS / TENS / ONES
6 DICE:	HUNDRED THOUSANDS /	TEN THOUSANDS /	THOUSANDS /	HUNDREDS /	TENS /	ONES			

Roll dice, arrange for greatest possible number

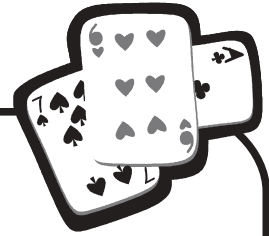
First to call ROCK & ROLL scores 5 POINTS

All other players must freeze their dice when ROCK & ROLL is called.

If a player's number is greater than the player who called ROCK & ROLL, they also get 5 POINTS

ROLL	NUMBER	EXPANDED NUMBER						
1	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
2	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
3	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
4	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
5	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
6	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
7	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
8	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
9	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____
10	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							_____

# Addition Face-Off



- LEVEL:** Grades 2 and up
- SKILLS:** Addition
- PLAYERS:** 2
- EQUIPMENT:** 1 deck of cards Ace – 9 (Ace = 1)

**GETTING STARTED:** Players divide the cards evenly between themselves. Then each player turns two cards over and adds them together. The player with the highest sum wins all the cards. In the event of a tie, players have a “face-off.” Each player deals out three more cards face down, then turns over two more cards and adds them together. The player with the highest sum wins all the cards. Play continues until decks are empty, then the player with the most cards wins the game.

**EXAMPLE:**

*Player One*

2	3
---	---

$2 + 3 = 5$

4	3

$4 + 3 = 7$

*Player Two*

4	A
---	---

$4 + 1 = 5$

4	5

$4 + 5 = 9$

*Both players draw the same sum, so a face-off starts. Each player deals three face down cards, then draws again. Player Two wins with a sum of 9.*

**VARIATION:**

Draw more cards and arrange them as two or three-digit numbers for more difficult math.

A	5
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*Three cards: a two-digit number (15)*

3
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*added to a single-digit number (3).*

*Or...*

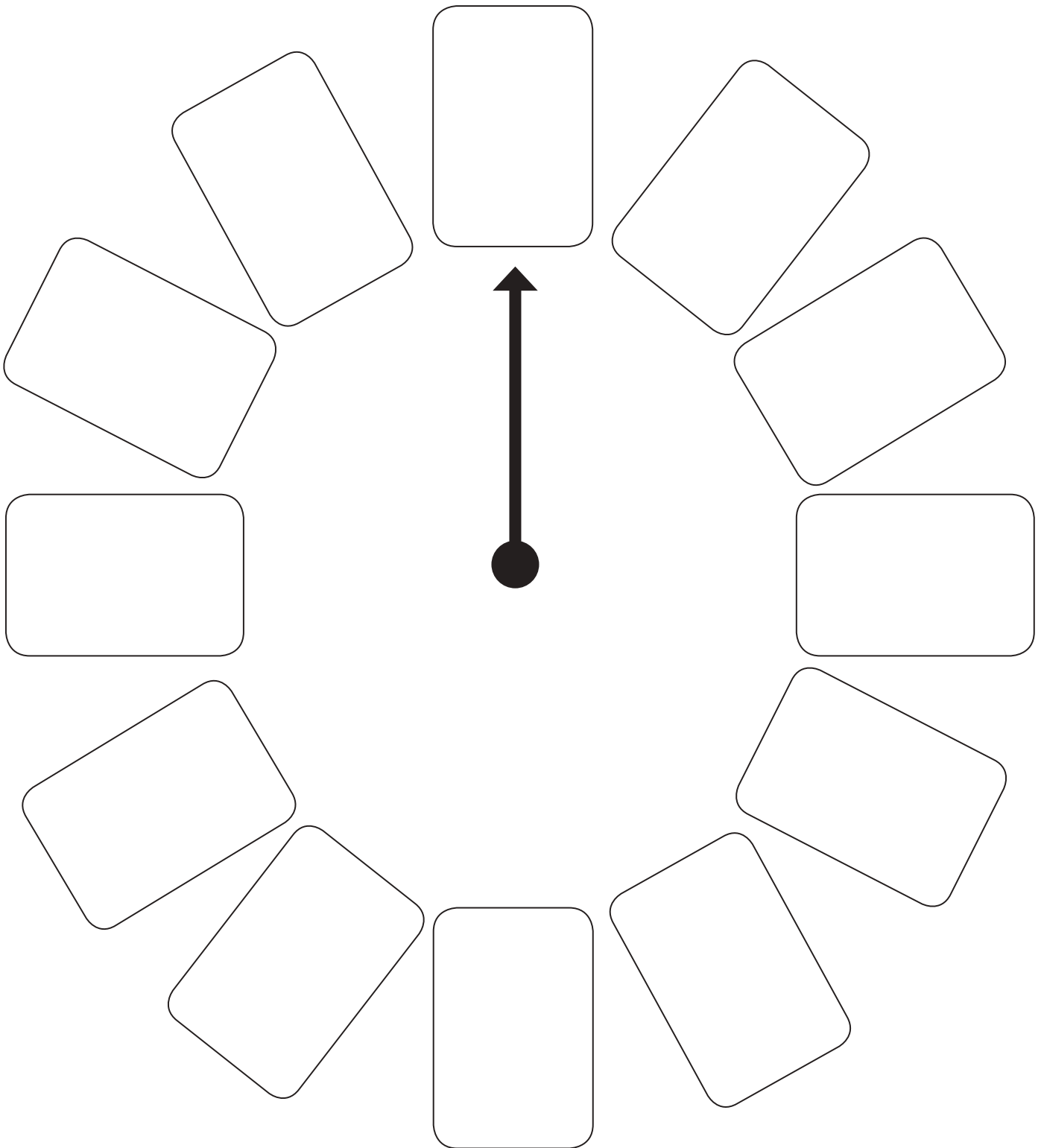
5	3	4
---	---	---

*Five cards: a three-digit number (534)*

2	3
---	---

*added to a two-digit number (23).*

# MR. WOLF IS UPSIDE DOWN! GAMEBOARD



# TICK TOCK ROLL A CLOCK

## WHAT YOU'LL NEED

Each Double Dicer needs one Three-in-a-Cube Die, paper, pencil.

## TO BEGIN

Each player needs to draw a clock as illustrated below.

## THE GOAL

To be the first Double Dicer to circle all the numbers on their clock.

## LET'S ROLL

Player One rolls the die and may now add, subtract, multiply or divide the three numbers to target any number between 1-12.

**EXAMPLE:**



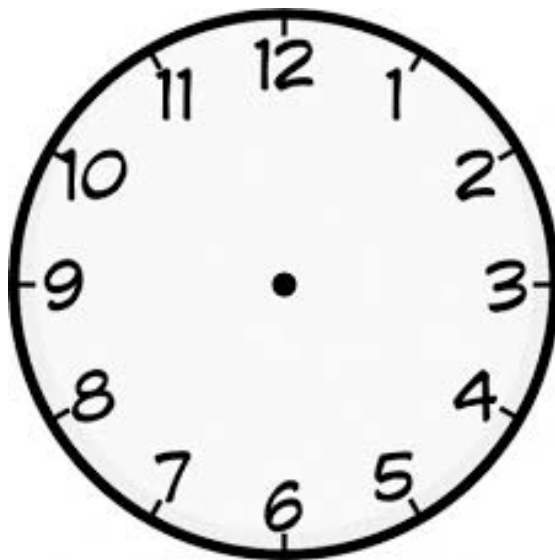
**Roll is**

**2 3 6**

Player One can circle on their clock, either:

$(2 \times 3) + 6 = \underline{12}$  OR  $2 + 3 + 6 = \underline{11}$  OR  $(6 \div 2) + 3 = \underline{6}$  etc.

- Players can circle only one number per roll.
- Players alternate rolling the die, analyzing their combinations, trying to be the first player to circle all the numbers on their clock.
- If a player is unable to find a combination for any of the remaining numbers, play continues to their opponent.



Do you think there are certain numbers that will be more difficult to circle?