

**box cars
and
one-eyed jacks®**

Presents

**Operation
Box Cars**

Presented By John Felling

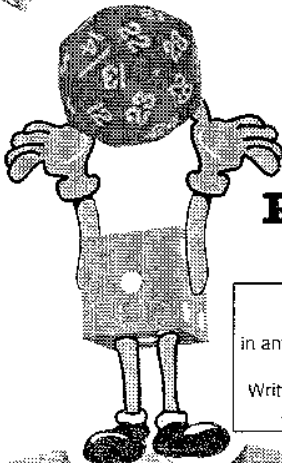
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PARENTS CAN HELP KIDS SUCCEED IN MATH

AS A PARENT, YOU ARE YOUR CHILD'S MOST IMPORTANT TEACHER!

YOU CAN:

PRESENT A POSITIVE ATTITUDE *about math - even if you didn't care for it in school. Kids need to feel good about math. If you say, "I hated math," or "I can't do math," your child may start to feel the same (You probably know more about math than you think!).*

SHOW INTEREST *in your child's homework - and be on hand to help.*

ENCOURAGE ACTIVITIES *that make math interesting and fun!*

GAMES ARE A PERFECT WAY
TO MAKE HOMEWORK...
"HOME PLAY"

A "REFRESHER" IN THE LANGUAGE OF MATH

Addition: $\text{addend} + \text{addend} = \text{sum}$

Subtraction: $\text{minuend} - \text{subtrahend} = \text{difference}$

Multiplication: $\text{factor} \times \text{factor} = \text{product}$

Division: $\text{dividend} \div \text{divisor} = \text{quotient}$
(and sometimes a remainder)

Fractions: $\frac{\text{numerator}}{\text{denominator}}$

HORSE RACE

4 LEVELS
OF
PLAY

2 DICERS
2 PLAY



This is a game for two Dicers to play at one time. Players use one tray divided so that each player uses only their half.

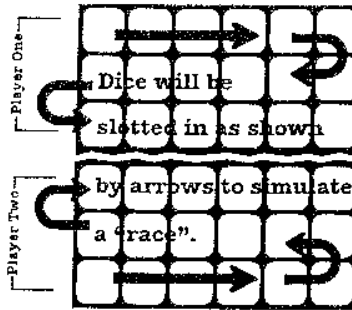
TO BEGIN

Each Dicer chooses eighteen dice of their own colour and these are removed from the tray.

THE GOAL

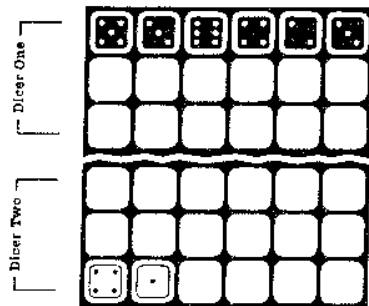
The goal of the game is to have the most dice in your side of the "horse race track" after all dice have been rolled out for the round. Dicers roll two dice at one time.

Dicers add their two dice and compare their sums. The Dicer with the greatest sum places them into their side of the "horse race track". Their opponent places their two dice into the lid (losing side). Dicers pick up two new dice, roll, add and compare their sums. The Dicer with the greatest sum places them into their side of the "horse race track" and their opponent places them into the lid. In the event of a tie sum, both Dicers place their dice into their own side of the "horse race track". Dicers roll out all remaining dice. The Dicer with the most dice on their side of the "horse race track" after nine tosses, is the winner.



The tray is divided between the two players as shown.

EXAMPLE



Play After 3 of 9 Rounds.

Toss 1

Dicer One + = 8 → WINS and places dice in tray

Dicer Two + = 5 → Tosses dice into lid

Toss 2

Dicer One + = 10 → WINS and places dice in tray

Dicer Two + = 3 → Tosses dice into lid

Toss 3

Dicer One + = 5 → TIE both players place dice in tray

Dicer Two + = 5

LEVEL 1

Play is outlined above, Dicers roll two dice and add.

LEVEL 2

Play as described in above rules, but now Dicers roll three dice and add for the greatest sum. The Dicer with the greatest sum (answer) places them into their side of the "horse race track".

$$\begin{matrix} \blacksquare & + & \blacksquare & + & \blacksquare & = & 9 \end{matrix}$$

LEVEL 3

Play as described in above rules, but now Dicers roll two dice and multiply $\blacksquare \times \blacksquare = 20$ for the greatest product. The Dicer with the greatest product (answer) places them into their side of the "horse race track".

LEVEL 4

Play as described in above rules, but now Dicers roll three dice, add two, and multiply by the third for the greatest product. See example.

The Dicer with the greatest product places them into their side of the "horse race track".

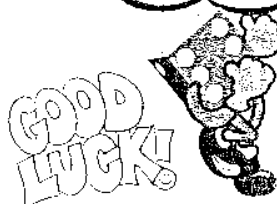


$$(5 + 3) \times 6 = 48 \rightarrow \text{Best Choice}$$

$$(6 + 3) \times 5 = 45$$

$$(6 + 5) \times 3 = 33$$

You will have to do some thinking here to create the best possible answer for your roll. Will there always be 3 possible answers?



HUNDRED BOARD TIC TAC TOE

LEVEL:	Grade 1 and up
SKILLS:	Identification of place value 1 - 100
PLAYERS:	2
EQUIPMENT:	Hundred Board, two 10-sided dice or cards (Ace=1)-9, bingo chips (1 colour per player)

GETTING STARTED: Players select a colour of marker. The goal of the game is for players to get three bingo chips of their own colour in a row, either horizontally, vertically or diagonally. Player one rolls the dice and makes a two-digit number (ie., roll 4 and 7 and verbalizes "4 tens, 7 ones, : forty-seven", OR "7 tens, 4 ones, : seventy-four"). Player then covers the two corresponding spaces on the Hundred Board. Player two then takes their turn, rolling the dice and covering both of their numbers, remembering to verbalize the tens and ones place value to their opponent. Players continue to alternate turns trying to get TIC TAC TOE - THREE IN A ROW. When this happens the player removes their markers and counts 2 points for each marker (6 points for three in a row).

CAPTURING AN OPPONENT'S SPACE: If a player rolls a two-digit number that is occupied by their opponent then that player removes their opponent's marker and replaces it with one of their own. Each captured marker is worth 5 points.

ROLLING YOUR OWN SPACE: If a player rolls a one or two-digit number that they already occupy, they may roll again to get a new number.

Players continue to alternate turns for a set period of time. At the end of play, the player with the most points is the winner.

Grade 4-9 Variation: 100 Board Wipe Out

Roll 5 dice, then using $+$ $-$ \times \div (and exponents if you wish) make a math sentence that = one of the numbers on the 100 board. Using the same roll, make a new math sentence to = another number on the 100 board. Keep going until you can no longer make any more math sentences to = any other number on the 100 board. Roll the 5 dice again and continue. How many rolls will it take for you to clear the board?

Hundred Board TIC TAC TOE

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

Addition TIC TAC TOE

	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

or Adding Fact Family TIC TAC TOE

Multiplication Board

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

100 Board Wipe Out

Roll 1
Roll 2
Roll 3

Roll 4
Roll 5
Roll 6

=	1
=	2
=	3
=	4
=	5
=	6
=	7
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= 99
= 100

Roll 3 to 5 dice, record numbers, create math sentence, mark on 100 Brd at answer or on answer sheet, keep making math sentences with same roll until no longer possible, then re-roll, **RECORD IN WRITING ALL MATH SENTENCES**

Flippin' Out



Tens

Ones

Tens

Ones

Player One

Player Two

MULTIPLICATION SCRAMBLE

0 - 9	_____	0 - 9	_____
10 - 19	_____	10 - 19	_____
20 - 29	_____	20 - 29	_____
30 - 39	_____	30 - 39	_____
40 - 49	_____	40 - 49	_____
50 - 59	_____	50 - 59	_____
60 - 69	_____	60 - 69	_____
70 - 79	_____	70 - 79	_____
80 - 89	_____	80 - 89	_____
90 - 99	_____	90 - 99	_____
100 - 109	_____	100 - 109	_____
110 - 119	_____	110 - 119	_____
120 - 129	_____	120 - 129	_____
130 - 139	_____	130 - 139	_____
140 - 149	_____	140 - 149	_____

THE BIG ROUND UP

10 20 30 40 50 60 70 80 90 100 110 120 130 140

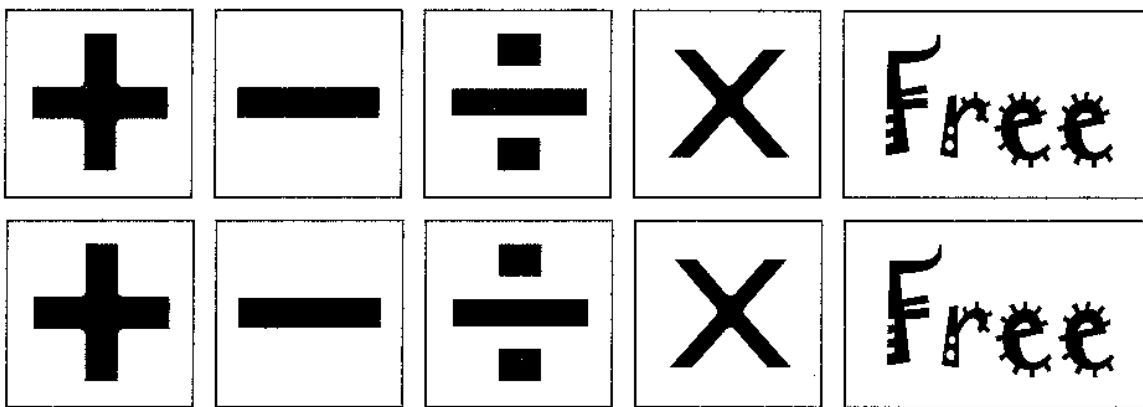
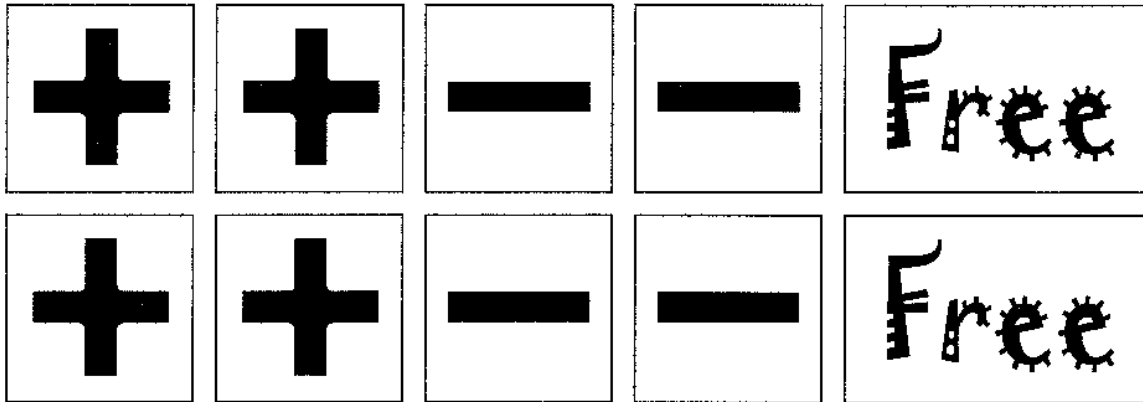
10 20 30 40 50 60 70 80 90 100 110 120 130 140

TANGLE WITH TWENTY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
X X X

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
X X X

Double Dice Decisions



GOAL: The greatest accumulated sum wins

- 1) Roll the double dice
- 2) Decide which operation to use and record the math sentence
- 3) Bank your points and cover up that operation. That operation cannot be used again except as a free choice
- 4) Division sentences must have a remainder of zero in order to score

EXAMPLE:

ROLL

ACCUMULATED POINTS

- 1) $6 - 2 = 4$
- 2) $3 + 1 = 3$
- 3) $4 + 3 = 7$
- 4) $4 \times 2 = 8$
- 5) $6 \times 3 = 18$

4
+3 7
+7 14
+8 22
+18 **40**

Total Points

Chooses free →