

STRATEDICE



For Families

Math Games
Using Dice Trays
for Ages 6 and Up

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box cars and one-eyed jacks

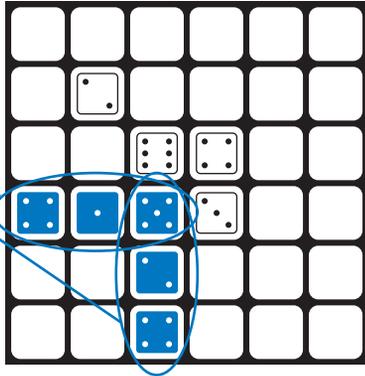
TABLE OF CONTENTS

STRATEDICE	3
TRIPLE PLAY	5
LEAP FROG FOR TWELVE	7
ROLL'N ON PLACE VALUE	9
"36"	11
PROBABILITY PLAY OFFS	13
EVEN THE SCORE	15
TRINGO	18
DON'T HANG LOOSE!	20
KNOCK YOURSELF OUT!	22
SQUARE DOUBLING	25
CHANCE	27
HIGH ROLLERS	29
DOUBLE TROUBLE	31
4 BY 4	32
HORSE RACE	34

STRATEDICE (CONTINUED)

POSSIBLE STRATEGY

In this example, Player 1 has used the 5 die both vertically and horizontally and is now able to score twice with it. (4+1+5=10 and 4+2+5=11)



Example 2

One strategy might be for players to count sixes and fives more than once by building an intersecting row and column with that particular die (see example 2).

Remember, you can improve your score by using high numbers to score and low numbers to stop your opponents' strategy.

VARIATION I

Play a "golf-like" variation of the game where the goal of the game is to avoid getting three of your own colour in a row. Any three or more in a row of your own colour count against you. After adding up the sums, the player with the least total wins.



VARIATION II

To challenge yourself, try multiplying the numbers when totalling your score. Grand total scores can be calculated using a calculator. The Dicer with the highest score wins.

ROLL'N ON PLACE VALUE



TO BEGIN

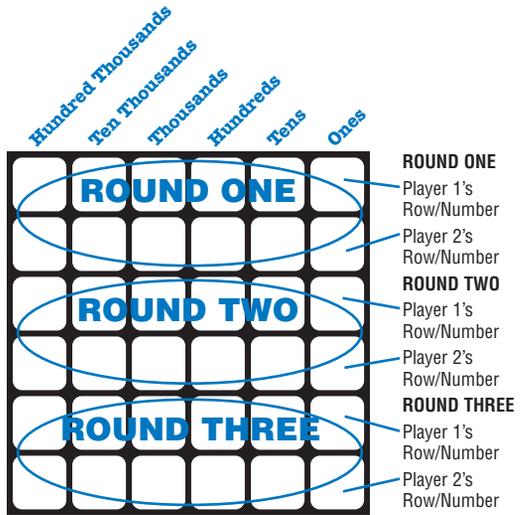
Dicers select their own colour of dice. The dice will be rolled alternately one at a time by the players throughout the game. A total of three rounds will be played (see example 7).

THE GOAL

The goal of the game is to be the player who creates the largest six-digit number in each round.

TO WIN

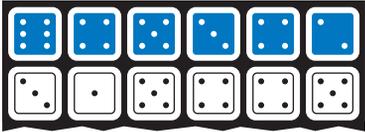
A Dicer must be the first one to win two out of three rounds. To start the first round player number one rolls a die and selects the best place value position in their row. For example, if player one rolls a two, the "tens" position might be selected. Player two now might roll a five and place it in the "ten thousands" position of their row. Once a die is placed in any place value position it cannot be moved. Remember, this is a game of chance. It depends on chance whether you throw the number you want on the die. Be a risk-taker and make a calculated guess. The more you play, the better you'll play. Players alternate taking their remaining five rolls, each building their own hundred thousands number - keeping in mind the goal of the game is to create the largest number possible.



Example 7

ROLL'N ON PLACE VALUE (CONTINUED)

Player 1 rolls a 5
Player 2 rolls a 4
Player 1 rolls a 3
Player 2 rolls a 4
Player 1 rolls a 6
Player 2 rolls a 5
Player 1 rolls a 4
Player 2 rolls a 5
Player 1 rolls a 2
Player 2 rolls a 1
Player 1 rolls a 4
Player 2 rolls a 3



Example 8

Player one's
number is
645,342 which
beats player
two's number
315,445.

VARIATION I

To decrease the level of difficulty players may roll less dice ie., only four dice per player to build a thousands number or three dice each to build a hundreds number.

VARIATION II

Dicers can agree to change the goal of the game and now attempt to build the smallest six-digit number in each round. A roll of 1 or 2 is now considered a "nice dice" roll! The lowest number you could possibly roll would be 111,111. What would the probability of that be?

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.

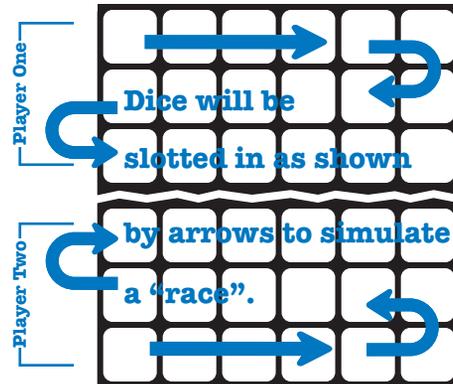
TO BEGIN

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.

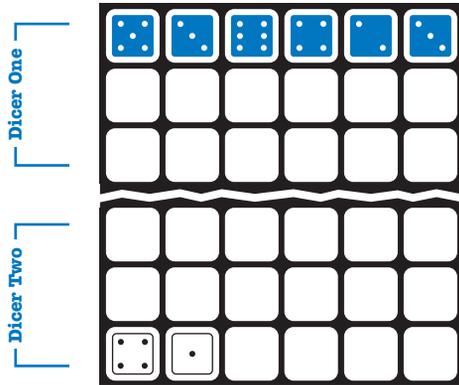
Dicers add their two dice and compare their sums. The Dicer with the greatest sum places them into their side of the “horse race track”. Their opponent places their two dice into the lid (losing side). Dicers pick up two new dice, roll, add and compare their sums. The Dicer with the greatest sum places 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.

HORSE RACE (CONTINUED)

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.

HORSE RACE

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”.

$$\begin{array}{|c|} \hline \cdot \\ \hline \cdot \\ \hline \cdot \\ \hline \end{array} + \begin{array}{|c|} \hline \cdot \\ \hline \cdot \\ \hline \cdot \\ \hline \end{array} + \begin{array}{|c|} \hline \cdot \\ \hline \cdot \\ \hline \cdot \\ \hline \end{array} = 9$$

LEVEL 3

Play as described in above rules, but now Dicers roll two dice and multiply $\begin{array}{|c|} \hline \cdot \\ \hline \cdot \\ \hline \cdot \\ \hline \end{array} \times \begin{array}{|c|} \hline \cdot \\ \hline \cdot \\ \hline \cdot \\ \hline \end{array} = 20$ 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”.



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

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

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

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

