

PLAYER SALUTE

This is a game for two players and one referee. You will need a deck of cards (Ace – 10).

Each player draws a card and, without looking, holds the card on his/her forehead facing outward.

The referee looks at the two cards and either adds, subtracts, multiplies, or divides (depending on the facts they are working on) and gives the answer.

The two players face each other and look at their opponent's card. The two players need to figure out what their own card is by filling in the missing number.

Example Multiplication: the referee says "36"

Player One has a 4 and Player Two has a 9.

Player One needs to look at the 9 and figure out that he/she has a 4 and vice versa.

Whoever answers first gets the cards.

Players take turns being the referee.

OPERATIONS MIXER

Level: Grade 4 – 6

Skills: Problem solving, mixed operations

Players: Teacher vs. groups or pairs

Equipment: Cards (Ace = 1) – 9, paper, pencil

Getting Started: The teacher draws two cards and makes a two-digit number (example: 7 and 3 makes seventy-three). This number is displayed to the whole group. Each group or pair selects four cards. The players work co-operatively, manipulating the cards to arrive at the number created by the teacher. Students can multiply, add, subtract or divide, or do any combination, but each card can only be used once.

Example: Teacher turns over 73. Group draws 4, 6, 3, 1. Cards are used as follows:

$$\begin{array}{r} 4 \times 6 = 24 \\ \quad \times 3 = 72 \\ \quad + 1 = 73 \end{array}$$

This group would score a point. Play continues for a set period of time. The group with the most points at the end wins.

MULTIPLICATION WAR

Level: Grade 4 and up

Skills: Multiplication facts to 81

Players: 2

Equipment: Cards (Ace = 1) – 9, multiplication table

Getting Started: Players divide cards evenly between themselves. Players turn over two cards each and multiply them. The player with the largest product collects all four cards. In the event of a tie (example: the same product), each player deals three more cards face down. Two more cards are turned up and the player with the largest product collects all of the cards. Play continues until one player has collected all of the cards. Players may need to check a multiplication table.

Example: Player 1 turns over 5, 7 ($5 \times 7 = 35$) Player 2 turns over 4, 9 ($4 \times 9 = 36$)

Player 2 would win all four cards.

Variation: To increase the level of difficulty, increase the number of cards used.

Example: 3 cards = two-digit x one-digit
 4 cards = two-digit x two-digit
 5 cards = three-digit x two-digit

3 ADDEND SNAP

Level: Grade 2 – 6

Skills: Addition of 3 addends

Players: 3 of equal skill level

Equipment: Cards (Ace = 1) – 6

Getting Started: Players divide the cards evenly among themselves. Players then each turn over a card at the same time. The first person to correctly add them together and say the sum out loud collects all three cards. In the event of a tie (example: all players give the answer at the same time), all players keep their own cards. If two players say the answer at the same time, they keep their own cards. The third player's card is removed from the game. Play continues until one player loses all of his/her cards. The other two players count their cards to determine a winner. The player with the most cards is the winner.

Variation: This game can be played with two players. Divide the cards evenly between the two players. Players alternate turning over three cards from their hand. Whoever says the correct sum out loud first collects the cards. Players continue alternating turning over the cards. The player who collects all of the cards is the winner.

THE 18TH HOLE

Level: Grade 3 and up

Skills: Multiple addend addition

Players: 2, or teacher vs. whole group

Equipment: 3 dice for each player, game board as follows for each player, pencil

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

Getting Started: Player number one rolls all three dice and adds them together. Player one crosses off the number rolled on their game board (example: $6 + 6 + 3 = 15$, 15 is crossed off). Only one number can be crossed off and no combinations are allowed. Player number two may then take a turn. If either player rolls a number already crossed off their game board, they receive a strike (X). Players continue to alternate turns. The game ends when all players have struck out (three strikes) or when one player gets their entire game board crossed off.

Scoring for Grade 3: If both players strike out, the player with the most numbers crossed out wins.

Scoring for Grades 4 and up: Players total the numbers left uncrossed. The smallest number wins.

Variation: To increase the difficulty, players may cross off combinations and use both addition and subtraction.

CONTIG

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	44	45	48	50	54	55
60	64	66	72	75	80	90	96
100	108	120	125	144	150	180	216

1. Roll 3 dice and mark the sum of the 3 dice as the starter square.
2. Each player rolls the 3 dice and uses operations (addition, subtraction, multiplication, division) and all three dice numbers to form a new number on the Contig board. Put an X on this number.
3. Score 1 point for each marked square your new number touches.
4. Play 8 rounds.
5. Player with the highest score wins the game.

SUPER STAR TRAVELER

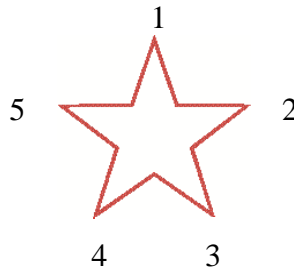
Level: Grade 3 and up

Skills: Adding and subtracting to 18, problem solving

Players: Cooperative groups, pairs or solitaire

Equipment: Cards (Ace = 1) – Queen + 1 Joker, 2 dice (Jack = 11, Queen = 12), pencil/crayon

Getting Started: Players build a 7 x 7 grid with cards face up. The object of the game is for the group, pair or individual to take away all of the cards before getting all five points of a star colored in.



Example:

7	3	5	2	9	4	Jack
2	10	1	6	1	3	7
5	5	9	6	7	Q	Q
8	1	7	4	4	Q	6
8	3	9	1	10	4	Jack
Jack	10	3	8	Jack	6	Joker
10	2	5	8	2	Q	9

Player rolls the dice and adds them together. Players may take away any card or combination of cards that equals the roll and that appears at the bottom of any column. Addition, subtraction, or a combination may be used to a maximum of three cards used per roll.

Some sample play: Players roll $5 + 4 = 9$

Looking at the bottom row, players could remove $2 + 5 + 2$ or simply the nine by itself or go up the second column from the left with $2 + 10 - 3$. Once players decide on the combination of cards to be removed, they are taken off, and the dice are rolled again.

Second roll $2 + 1 = 3$

Jack and eight are removed (example: $11 - 8 = 3$)

In the event that a card or combination cannot be found, players color in one point of their star. Play continues until all cards are removed or their star is colored in. As players have more experience, they will develop more strategies to maximize their chances.

Variation: Multiplication and division can also be used.

SAVE TWENTY

Players: 2

Tools: 5 dice for each pair or spinners and scratch paper

Why: To build understanding of probability and to provide practice with strategy development, averaging, and addition.

How:

- In each game, five dice are rolled to try to create a sum close to, but not greater than 20.
 - A sum larger than 20 gives the player a score of zero.
 - Players try to achieve the highest total score for ten games.
- Each game has **four** rounds.
 - A player rolls all four rounds before giving the dice to another player.
 - On the first round, five dice are rolled. For example: 1 – 1 – 5 – 4 – 3
 - The player may “save” from none to all of the dice to make up her or his game score.
 - Any dice not saved on the first round must be rolled again for round two. Again, none or all of the newly rolled dice may be saved.
 - Continue this way through round four.
 - On the fourth roll, all dice that are left must be used to make the final score.
 - Note: Any dice saved cannot be rolled again in that game.
 - The following is a sample game:

Round	Rolled	Saved	Total
1	4 – 3 – 2 – 5 – 2	4 – 3 – 5	12
2	1 – 3	None	0
3	6 – 5	5	5
4	1	1	1
			<i>Total Score</i> 18

- After both players have played a game, they record their scores. After ten games, average the scores. The player with the highest average is the lucky winner.

More Ideas

Instead of pairs, play with teams. Talk to each other about your reasons for saving dice. Try to keep improving your team scores.