## Purpose

Requires:

To review basic number facts (+, -, x, $\div$ ).

## Materials

45 cards marked as shown. Note that this game may also be played with double-nine dominoes (any dominoes with blanks need to be removed).

## Organisation

Two - four players.

## Aim

To be the first player to run out of cards.

## Rules

1. The dealer deals five cards to each player.
2. The remaining part of the deck is placed in the middle of the table.
3. The top card off the deck is turned over. This is the key calculation card. Other players use the two digits shown on this card and one operation (,,$+- x$ or $\div$ ) to create a new number. For example, if the card was:
```
6
the two digits, six and three may be used to create the following numbers:
    9(6 + 3), 3(6-3), 18(6 x 3), 2(6\div3).
```

4. The first player (the player to the left of the dealer) attempts to match a card from his/her hand to the top card's value by combining numbers on each card in his/her hand, using any of the four operations (+,,$- x$ or $\div$ ), as illustrated above. If the player can match the card's value with one of his/hers, the player MUST explain how the cards match. The card from that player's hand is now placed on top of the centre card. This card now becomes the one that other players have to match.

- For example, the player may match the

by stating "six divided by three is two and four take two is two."

5. If a card cannot be matched to the top card on the discard pile, then the first player picks up a card from the pack. Other players do the same.
6. The first player to discard all of his/her cards is the winner.
7. If the drawing pile is used up before there is a winner, the player with the least number of cards in his/her hand is the winner. Alternatively the discard pile, except for the top card, may be shuffled and turned over to be used as the drawing pile.

## Variations

1. Play with the cards face up, on the table, rather than hidden from view in your hand. This will allow for more strategies to come into play. Some cards are more likely to be playable than other cards (see COBMO Combinations).

## One More One Less

## A game for two players

## Materials

- A pack of COMBO cards


## Rules

- Shuffle.
- Deal five cards face down to each player.
- The dealer places four cards face up in a column in the middle of the table.
- The remaining deck of cards is placed face down on the table.

- Players take turns to lay a card down from their hand on the table next to any face up cards on the table. The only rule is that the sum is one more or one less than the card that it is placed next to.

- If a card cannot be placed the player picks up a card from the deck and that completes his/her turn. The winner is the player with the fewest cards in their hand at the end of the game.


## Total Ten

## A game for one player

- The game can also be played in pairs, with each player checking the other's calculations in turns.


## Materials

- A Pack of Combo Cards


## Rules

- Separate out the following cards to use in the game.

- Using the six blank cards in your COMBO pack, write the following cards
\(\left.\left.\left.0 $$
\begin{array}{l}5 \\
0\end{array}
$$ $$
\begin{array}{l}4 \\
0\end{array}
$$\right] $$
\begin{array}{l}3 \\
0\end{array}
$$\right] \begin{array}{l}1 <br>

0\end{array}\right]\)| 0 |
| :--- |
| 0 |

- Deal all the above 21 COMBO cards face up in two rows of five, beginning in the top left and dealing across the first row and then the second row. Continue dealing until all the cards have been dealt.

| 5 <br> 5 | 3 <br> 3 | 4 <br> 1 | 1 <br> 1 | 3 <br> 0 |
| :--- | :--- | :--- | :--- | :--- |
| 4 <br> 0 | 5 <br> 1 | 4 <br> 2 | 2 <br> 2 |  |

- This means that there will be two cards in each pile and one extra in the top left.
- The player picks up two cards whose number total ten, for example $\begin{aligned} & 4 \\ & 3\end{aligned}$ and $\begin{aligned} & 2 \\ & 1\end{aligned}$ - The cards may be in the same row or different rows.
- If play stops because the player can't find any combinations that make ten, then cards within a single pile may be swapped around. At the end of the game a single card will remain. The single remaining card should total five. If not, then a mistake has been made and the player will need to check card pairings to determine where the error occurred.


## A game for one player

- The game can also be played in pairs, with each player checking the other's calculations in turns.


## Materials

- A Pack of Combo Cards


## Rules

- Deal the 45 COMBO cards face-up in three rows of five, beginning in the top left and dealing across the rows. Continue dealing until all of the cards have been dealt.
- This means that the pile will have 3 cards.

- The player picks up two cards whose numbers total twenty, for example $\left.\begin{array}{l}8 \\ 7\end{array}\right]$ and $\begin{aligned} & 4 \\ & 1\end{aligned}$ - The cards may be in the same row or different rows.
- If play stops because the player can't find any combinations that make twenty, cards within a single pile may be swapped around. At the end a single remaining card will remain. This card should total ten. If not, then a mistake has been made and the player will need to check card pairings to determine where the error occurred.


## Recommendation

- Have students verbalise the combinations to 20 ; e.g. " 7 and 4 is 11 plus 5 and 4 is 20 "


## Variations

- (Easier) Deal out two rows of six.
- (Harder) Remove the "9 and ..." cards and look for totals of 18 instead of 20.
9

9 | 9 |
| :--- |
| 8 |\(\left[\begin{array}{l}9 <br>

7\end{array} $$
\begin{array}{l}9 \\
6\end{array}
$$ $$
\begin{array}{l}9 \\
5\end{array}
$$ $$
\begin{array}{l}9 \\
4\end{array}
$$ $$
\begin{array}{l}9 \\
3\end{array}
$$ $$
\begin{array}{l}9 \\
2\end{array}
$$ $$
\begin{array}{l}9 \\
1\end{array}
$$\right.\)

