



# Part-Whole Triangles

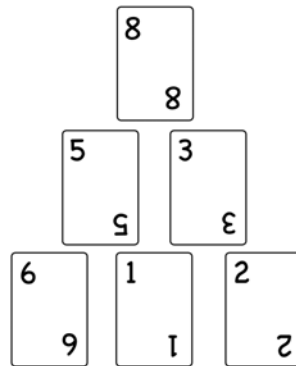
**Math Concepts:** Add numbers from 1 to 10, number bonds

**Materials:** deck of playing cards

**Players:** 2

**Set up:** Use playing cards from 1 to 10. Each player is dealt 6 cards face up, and these cards are placed in a pyramid from top to bottom in the order they are dealt - 1 card in the top row, two cards in the second row, and three cards in the third row. There is a draw pile with one card turned over to start a discard pile.

**Play:** During a turn, a player chooses the top discard card or the unknown card at the top of the draw pile. The chosen card must replace a card they already have, and the replaced card is put in the discard pile.



**Goal:** The goal for each player is to create a 6-card pyramid where each card is the sum of the two cards below it. The example above is almost complete - the player just needs to fix the left-hand corner to be a 4 so that the 5 will be the sum of 4 + 1. The first player to achieve a completed pyramid wins.

## – DISCUSSION AND TIPS –

Discuss strategies for the best place to put a card you don't want to use. Also, discuss strategies for what to do when you know that your opponent needs one of your cards - how do you avoid discarding it?

Discuss strategies for what to do with small or large cards early in the game.

## – VARIATIONS –

Experiment with smaller or larger ranges of cards to accommodate the skills of younger or older players.

Use a difference pyramid instead, where each card is the difference of the two cards below it.

Use a ten-card pyramid for a longer game.