Triangle Solitaire (Coco rating: n/a) Learning: Easy

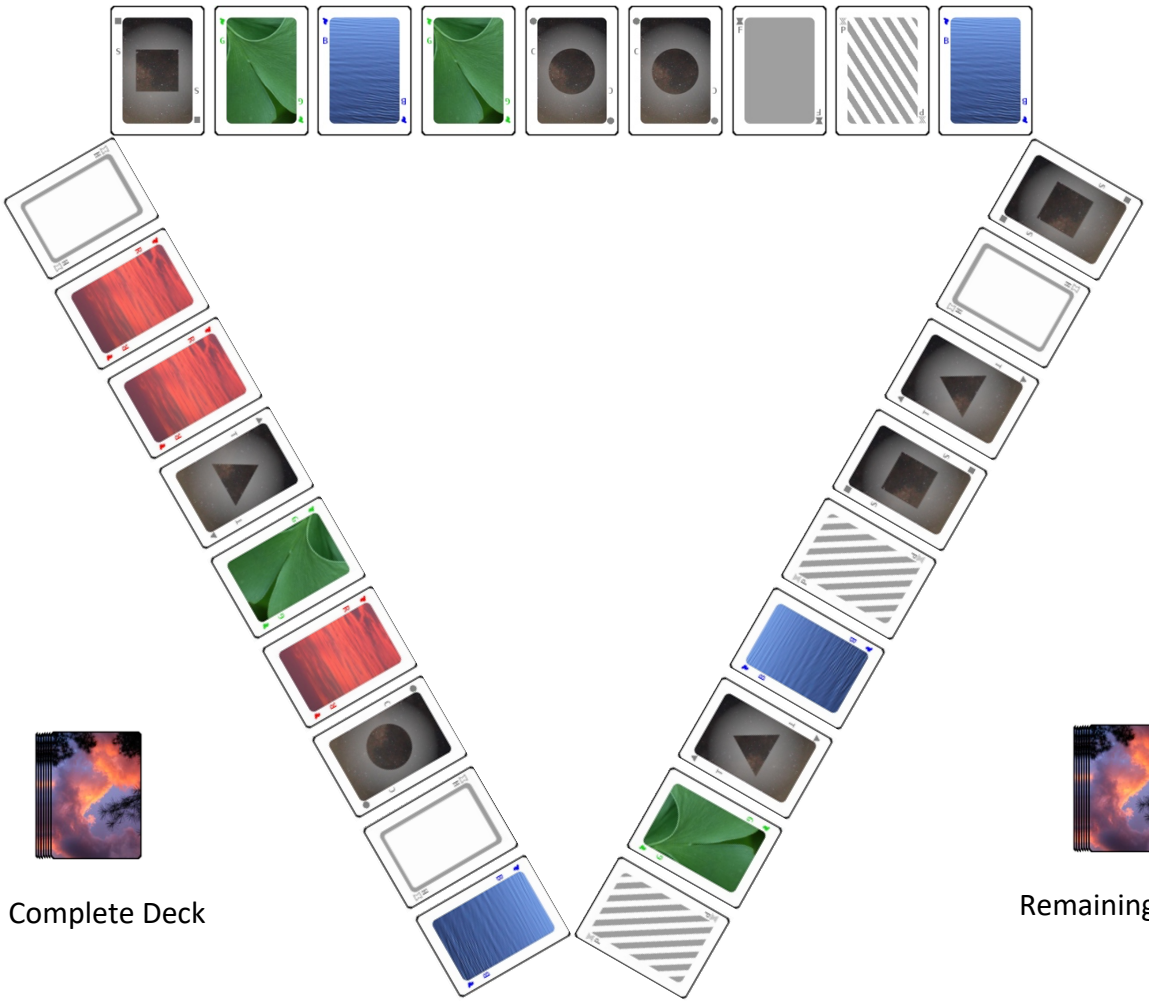
Cooperation Panorama: This solitaire game is outside of cooperative/competitive concepts

Interaction: One player tries to meet this solo game's goal.

Description:
This is a once-through-the-deck solitaire game, trying to place all the Completes in a continuous loop of matching cards. They must follow a template designated by an initial deal of Single cards in a triangular layout. Each placement impacts all other placements. Options dwindle as the game gets closer to the end.

Objective:
Make a fully matching/connecting loop of Complete cards by replacing matching Singles in a triangle arrangement of cards.

Set-up:
This game uses all the Singles and all the Completes. These cards are shuffled separately. A triangle of 27 Singles, nine per side are dealt out face up on the table. See below:

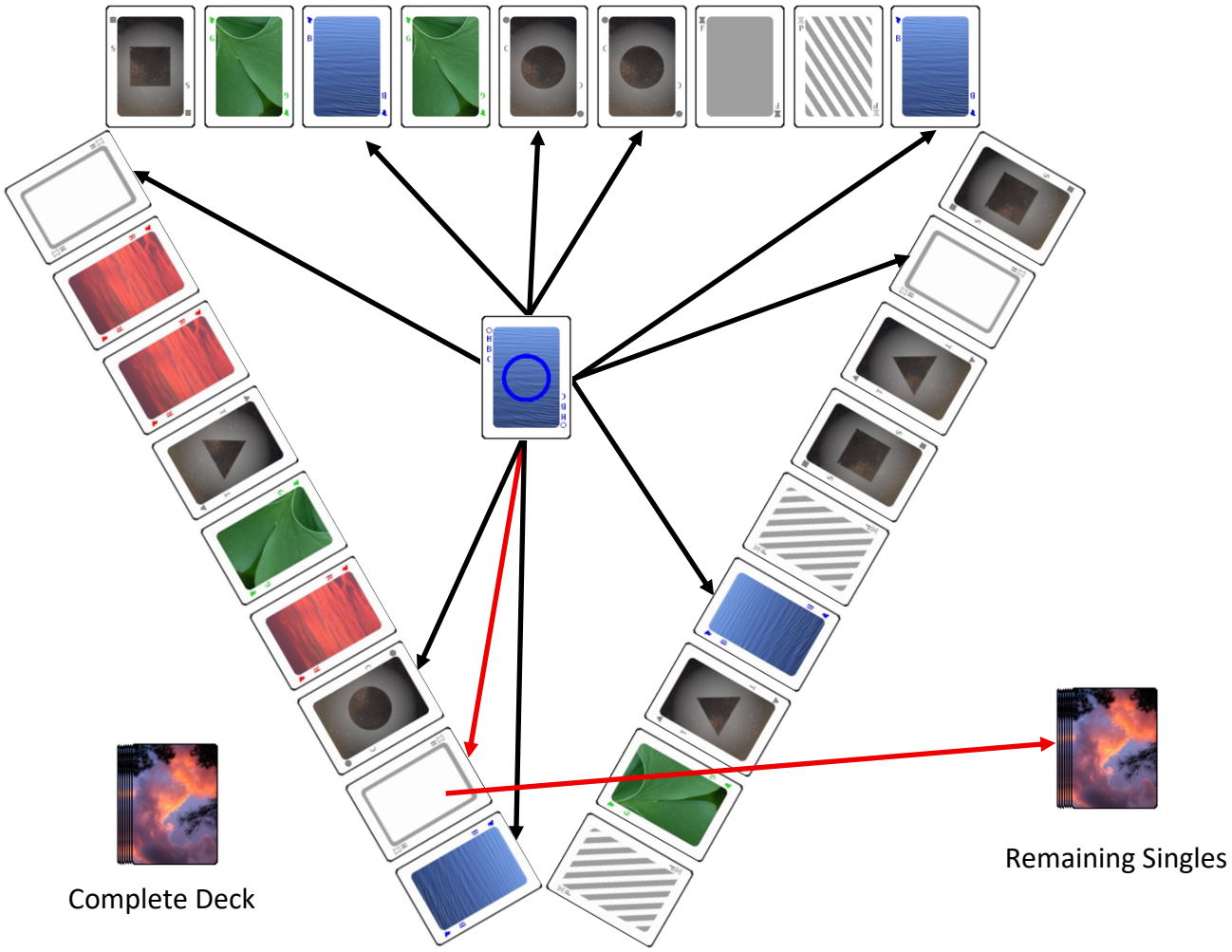


Complete Deck

Remaining Singles

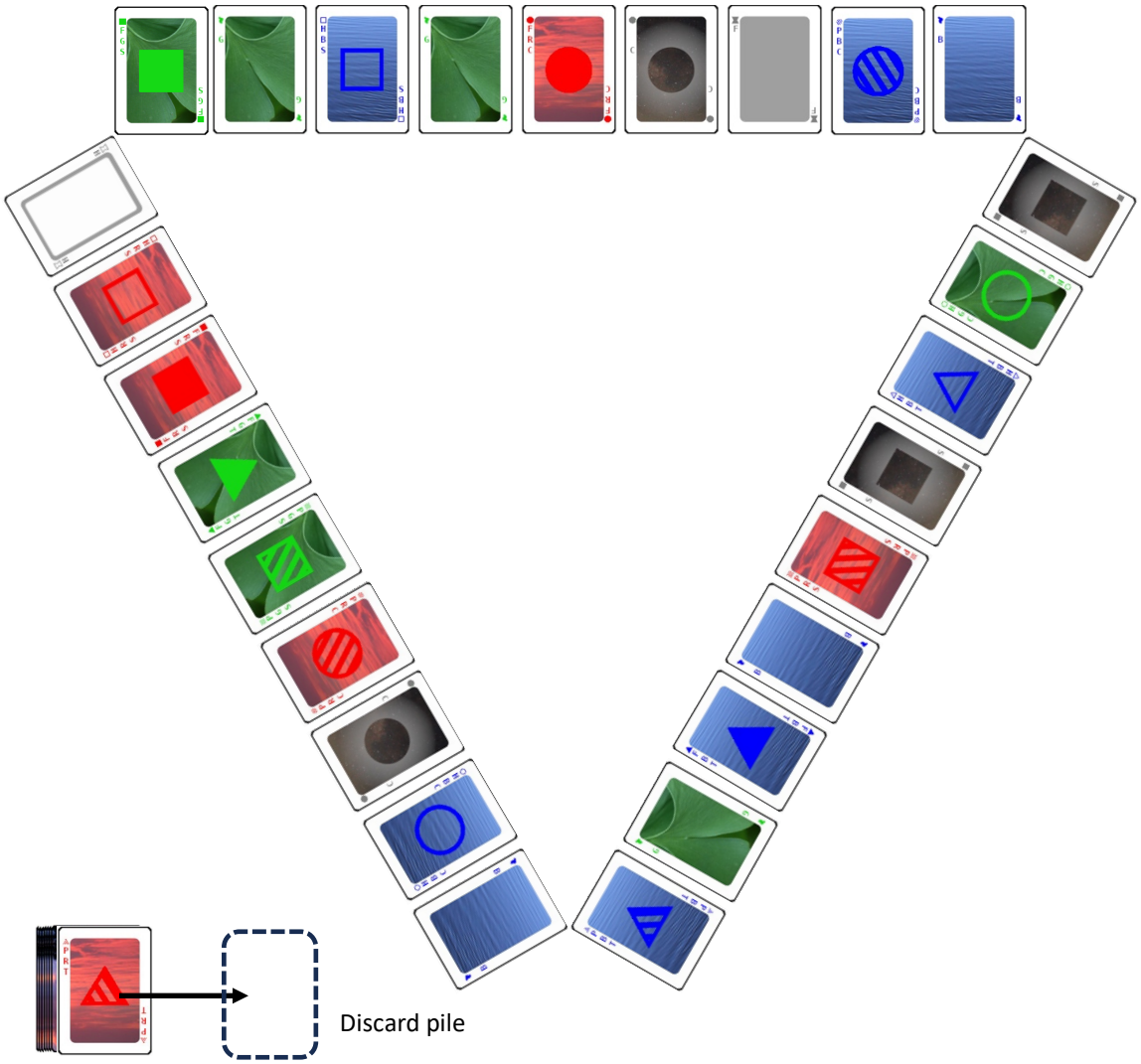
The remaining 9 Singles are set aside and can be used to help the player make decisions about which Completes to play in which locations (See Planning) or to increase the challenge of the game (See Variations). The 27 Complete cards are placed face-down in pile in front of the player.

Gameplay:
The game begins by flipping over the top card on the Complete deck and replacing a matching Single card somewhere on the Triangle of cards. For example, if the Hollow-Blue-Circle is revealed, it can replace any of the indicated cards: (In order for a Complete card to replace a Single, it MUST match its characteristic – so only Hollow, Blue and Circle Singles can be replaced in this case.)



The Single that is replaced is moved to the pile of the remaining Singles that can be used for planning. Strategically, the best option would be to replace the Hollow Single between the Circle and the Blue because both of these adjacent cards already match the Hollow-Blue-Circle. Alternatively, there would be a slight benefit to putting the Hollow-Blue-Circle on one of the Circle Singles in the top row, as it would already match the other Circle. Placing it on the Blue between the two top-row Greens, or on the Hollow near the left corner between the Square and the Red, could possibly work, but doing so would also put more constraints on those cards, and increases the amount of work needed to attain a fully matching loop. A Complete card is allowed to be placed on the triangle in such a way that it does not have any matches with an adjacent Complete card. This is a called discontinuity and will count against the final score (-2).

If a revealed Complete card cannot be placed anywhere on the triangle, put it in the discard pile and reveal the next card from the deck. This can occur if there are no Singles left that match any of the characteristics of the Complete card. This counts against the final score (-3). See example below.

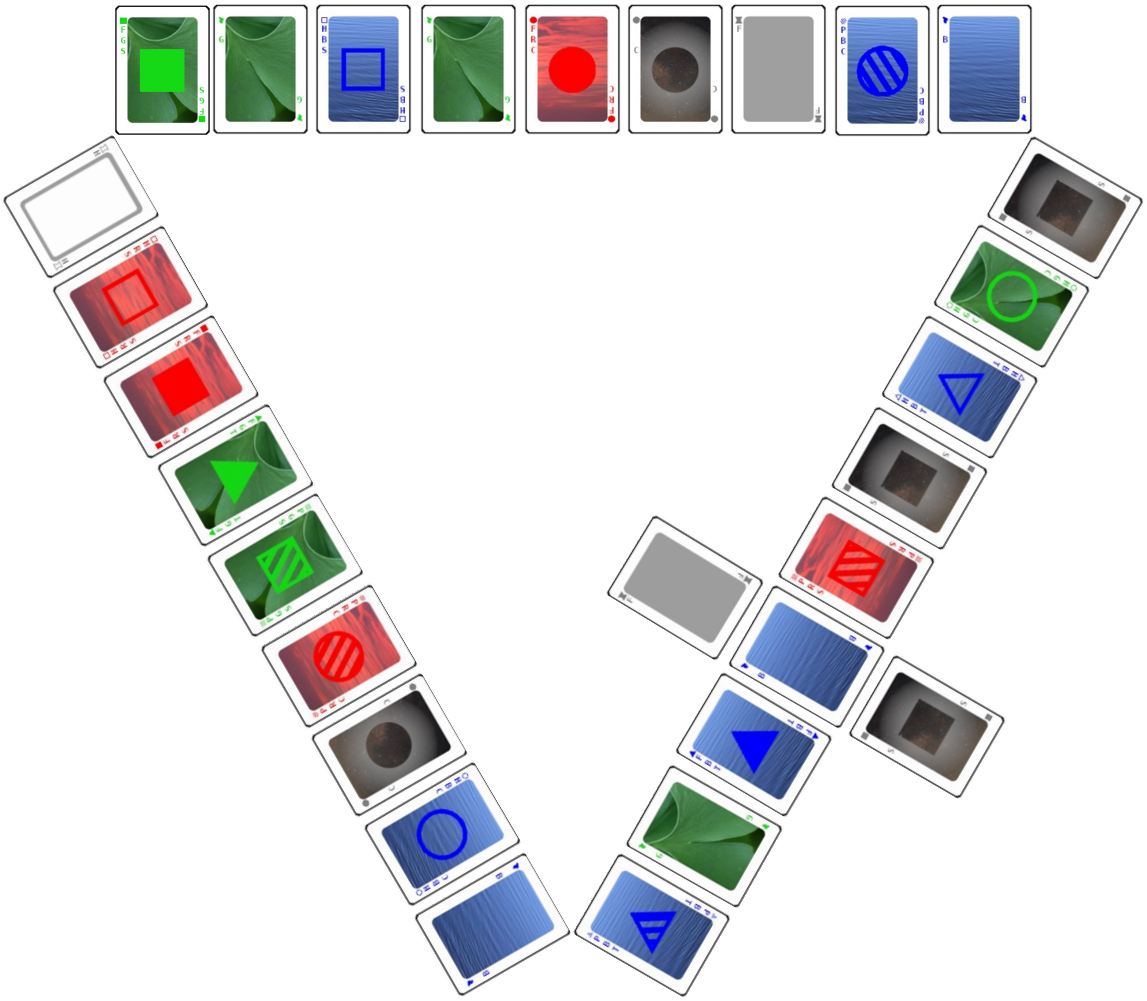


Notice that there are no Partial, Red, or Triangle Singles on the table, therefore this card, the Partial-Red-Triangle cannot be placed. This will prevent a full victory and will cause the player to lose points at the end of the round.

There is another problem on shown board that cannot be resolved. There is a Green Single in the top row between the Hollow-Blue-Square and the Filled-Red-Circle. There are only two possible cards that can successfully replace that Green Single: the Hollow-Green-Circle and the Filled-Green-Square. Neither of these cards are available, as they have both already been played elsewhere in the triangle and cannot be moved.
So, the player will lose additional points because that conflict cannot be resolved.

Planning:
This is not a required part of the game, and players can disregard this section without impacting the play of the game. Some players find it useful to use the remaining or replaced Singles to help avoid the kind of problems illustrated above. For example, the Blue Single on the right edge of the triangle between the Filled-Blue-Triangle and the Partial-Red-Square has significant constraints. The only cards that could be placed there without causing a discontinuity are the Partial-Blue-Triangle or Filled-Blue-Square. The Partial-Blue-Triangle has already been played, so the only card that can be played there is the Filled-Blue-Square. To keep track of this, you can place a Filled Single and a Squared Single by the Blue Single to serve as a reminder.

See the example below of the right side of the triangle with the two additional Singles marking the location for the Filled-Blue-Square.



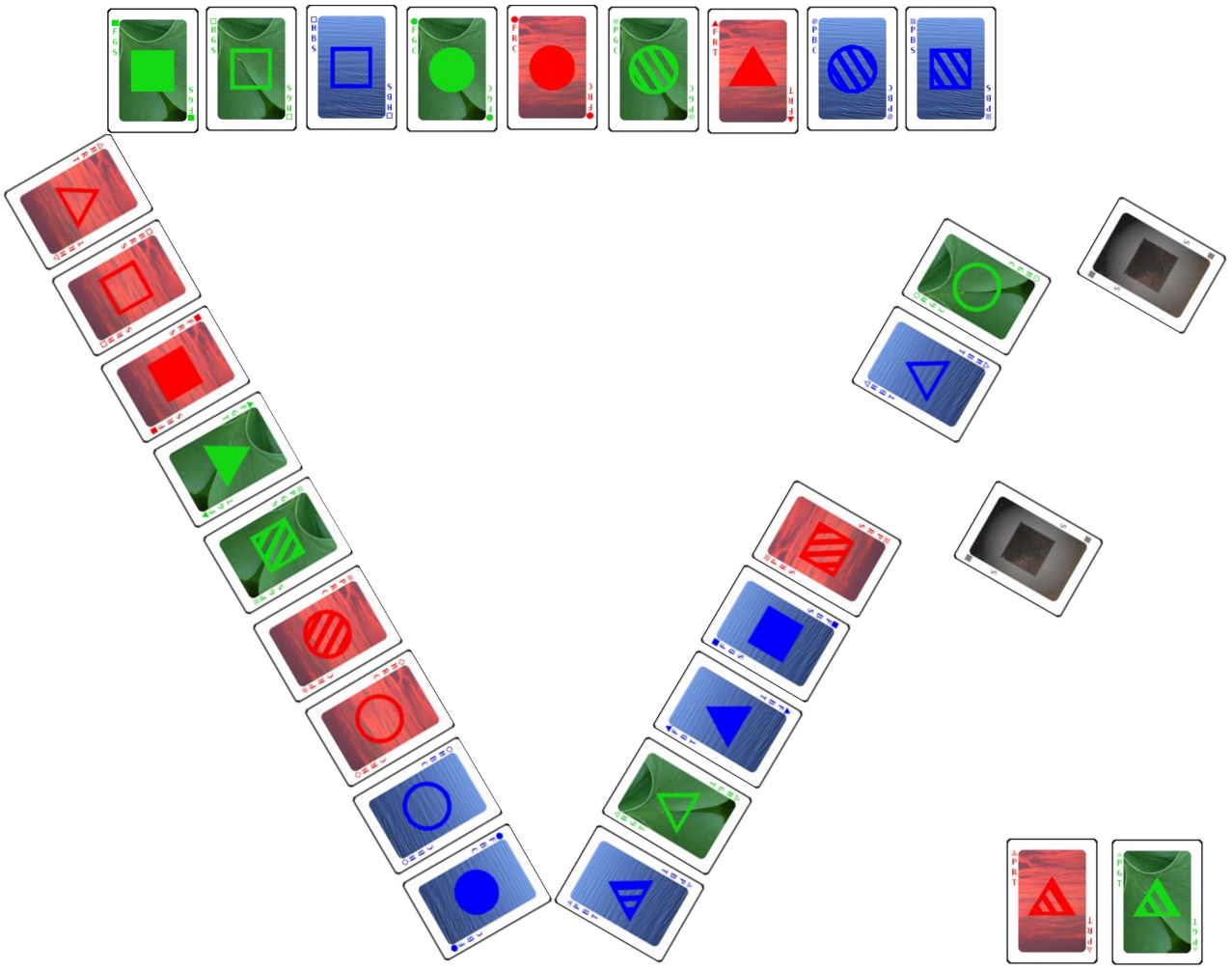
When the Filled-Blue-Square is revealed, replace all three Singles with that card. Use this technique only if you find it beneficial.

Game End:
The game ends when the deck of Complete cards runs out. At that point the game is scored using the following table:

1 point for each corner that matches/connects
5 points for each edge that fully matches/connects
-2 points for each discontinuity between adjacent cards
-3 points for each Complete card in the discard pile

A perfect game gains 18 points (3 fully connected edges (15 pts.) + 3 connected corners (3 pts.))

See the scoring example on the next page.



This is one possible outcome for the example from above. The entire Complete deck has been played and the scoring would proceed as follows:

The left side of the triangle has 9 Complete cards, all of which match with their neighbors. A successful edge (not including the corners) is worth 5 points. The top edge of the triangle also has 9 Complete cards, but they do not all match. The Hollow-Blue-Square and the Filled-Green-Circle are next to each other but share no characteristics. This is a discontinuity and prevents the edge from matching and deducts 2 points. However, there are two other discontinuities on this edge: both involve the Filled-Red-Triangle. On its left side, it shares no characteristics with the Partial-Green-Circle. On its right side, it does not match with the Partial-Blue-Circle. This gives a total of 3 discontinuities on this edge – for a deduction of 6 points. The right side is worse off, even though there are no discontinuities. There are two slots that could not be filled. The two missing cards (Partial-Red-Triangle and Partial-Green-Triangle) could not be placed and therefore deduct 3 points each for a total of another 6 points.

Finally, the corners: the leftmost corner is a discontinuity (-2), the rightmost corner does not factor in because it coincides with a missing card. The lower corner does match and earns one point. So, the total score for this round is: 5 + 1 – 6 – 6 – 1 for a total of -7. The best possible score – three successful edges (15 pts.) plus three matching corners (3 pts.) yields a score 18.

Variations:
There are two ways to make the game more challenging.

1.) Instead of putting the leftover 9 Singles off to the side for planning, deal 1 to 9 of them on top of existing Singles on the original layout of the triangle. (the more dealt, the greater the challenge). Now any Complete card played on a location with 2 Singles must match both of them. IMPORTANT: When dealing the extra Singles, two Singles of the same type cannot be placed together. If you are about to deal a Circle Single on top of a Square Single, put the Circle on the bottom of the deck and deal the next non-shape Single on the Square.

2.) Instead of putting the leftover 9 Singles off to the side for planning, shuffle 1 to 9 of them into the Complete deck. (the more included, the greater the challenge). The game should proceed as before. When a Single comes up from the Complete deck, the player chooses which Single on the triangle to add the new Single to. When a Complete card is placed at that location, it must match both Singles.