Function Rummy Instructions

Shuffle the function cards and deal out 8 cards to each player. The rest of the cards are placed face down in a pile and one card is turned over so it is face up. The goal of the game is the collect two complete sets of a “rule of four”. Each player takes a turn by either drawing a new card from the pile or by picking up the topmost card on the discard pile, and then discarding one of their cards. When a player has 2 complete sets of four cards that match the same function, they discard their final card upside down on the discard pile, cry out “function!” and lay down their two sets of four matching function cards.

Cooperative Function Challenge

There are 13 functions in the deck. Each is represented 4 ways: in function notation, as a table, as a graph, and in either words or in a picture. Can you and a partner put the cards into matching groups of 4 cards?
<table>
<thead>
<tr>
<th>WP</th>
<th>WP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas cost 80 cents each.</td>
<td>Bananas cost 60 cents per pound.</td>
</tr>
<tr>
<td>WP</td>
<td>WP</td>
</tr>
<tr>
<td>I was at an auction and my arch nemesis was there. Every time I bid, he would double my bid minus one dollar.</td>
<td>I got a $100 Starbucks gift card for my birthday and I buy a $3 latte every day.</td>
</tr>
</tbody>
</table>
I have a cell phone plan that costs $49 for unlimited minutes.

I’m pretty sure I like you twice as much as you like me.

I saw a pattern of dots that looked like this

```
••
••
••
•••
•••
•••
•••
•••
```

A new diet claims it can help me lose 3 pounds a week. I weigh 148 pounds now.
<table>
<thead>
<tr>
<th>WP</th>
<th>WP</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have $49 in my savings account. I plan to save one dollar a</td>
<td>I bought 49 hats. I bought so many because I lose one every</td>
</tr>
<tr>
<td>day from now on.</td>
<td>single day!</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>WP</td>
<td>WP</td>
</tr>
<tr>
<td>I saw a pattern of dots that looked like this</td>
<td>I saw a pattern of dots that looked like this</td>
</tr>
<tr>
<td><img src="image1.png" alt="Pattern 1" /></td>
<td><img src="image2.png" alt="Pattern 2" /></td>
</tr>
</tbody>
</table>
\[
\begin{array}{c}
y = 0.80x \\
y = 0.60x \\
y = 2x - 1 \\
y = 100 - 3x
\end{array}
\]
\begin{align*}
y &= 49 \\
y &= x \cdot (x + 1) \\
y &= 2x \\
y &= 148 - 3x
\end{align*}
<table>
<thead>
<tr>
<th>F</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y = 49 + x )</td>
<td>( y = 49 - x )</td>
</tr>
<tr>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>( y = x \cdot x )</td>
<td>( y = 2x + 2 )</td>
</tr>
<tr>
<td></td>
<td>x</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
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<tr>
<td>2</td>
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<tr>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>x</th>
<th>y</th>
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<tbody>
<tr>
<td>1</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3.20</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>x</th>
<th>y</th>
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<tbody>
<tr>
<td>10</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>2.50</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>x</th>
<th>y</th>
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</thead>
<tbody>
<tr>
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<td>2</td>
<td>1.20</td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
<td>1.50</td>
</tr>
<tr>
<td>3.5</td>
<td>2.10</td>
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</tbody>
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<td>2</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>1.50</td>
<td></td>
</tr>
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<table>
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<tr>
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<th>y</th>
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<tr>
<td>100000</td>
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<table>
<thead>
<tr>
<th>x</th>
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<tbody>
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<tr>
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<tr>
<td>10</td>
<td>20</td>
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<table>
<thead>
<tr>
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<th>y</th>
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<tbody>
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<tr>
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<tr>
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<table>
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<tr>
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<th>y</th>
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<tr>
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</tr>
<tr>
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<td>y</td>
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<tr>
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<p>| | | | | |</p>
<table>
<thead>
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<tbody>
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<td>4</td>
<td>16</td>
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<td>10</td>
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</tr>
</tbody>
</table>
F

\[ y = x \]

WP

I like you exactly as much as you like me.

T

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
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</tbody>
</table>

G

![Graph of the equation y = x](image.png)