Proofs with Uno

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Proofs are written in Two-Column Form

- Deductive reasoning is used to prove whether a statement is correct. It uses basic or general statements to arrive at a conclusion.

- Step by step ideas must be laid out with *postulates* or proven *theorems* to prove a statement.

Postulates and Theorems

- *Postulates* are big ideas that are accepted as universal truths without proof.
- *Theorems* are ideas that can be proven using deductive logic (through syllogisms).

Format of Two-Column Proofs:

- Write the “GIVEN” information, and what is to be proved.
- Construct a T.
- Statements that are true are placed in the first column. These statements are the steps needed to towards proving something.
- Reasons why the statement is true is placed in the second column.

Writing Uno Proofs

- The ***postulates*** *are the rules of Uno*.
- The first card is the ***Given***.
- Syllogistic logic is used to list the order in which cards are played to finally play the card to be **Proved**.
- The logic is justified in 2-column format.

3 *Postulates* of Uno!

1. Play the same **color card**.

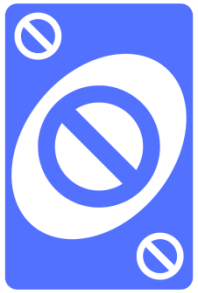
2. Play the same **number card**.

3. Play a WILD card to **change color**.

Sample

- Begin with 

- List how to play these cards to



- ‘Prove’

T-Chart

Card played	Reason
1. Blue 6	1. Given
2. Blue Skip	2. Same Color
3. Wild Draw 4	3. Change Color
4. Yellow 5	4. Same Color
5. Yellow 1	5. Same Color
6. Yellow Reverse	6. Same Color

Given

Not every postulate has to be used.

Same Symbol

Change Color

Same Color

Same Color

Same Color

T-Chart

Given: Red R

Prove: Red 9

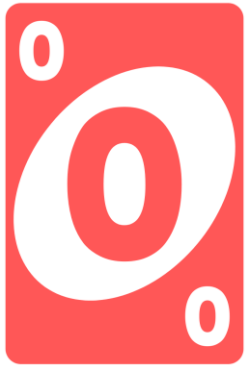
Card played	Reason
1. Red Reverse	1. Given
2. Yellow Reverse	2. Same Symbol
3. Wild Draw 4	3. Change Color
4. Blue 9	4. Same Color
5. Red 9	5. Same Number

No need to use Blue

Given:

Prove:

Using:



T-Chart

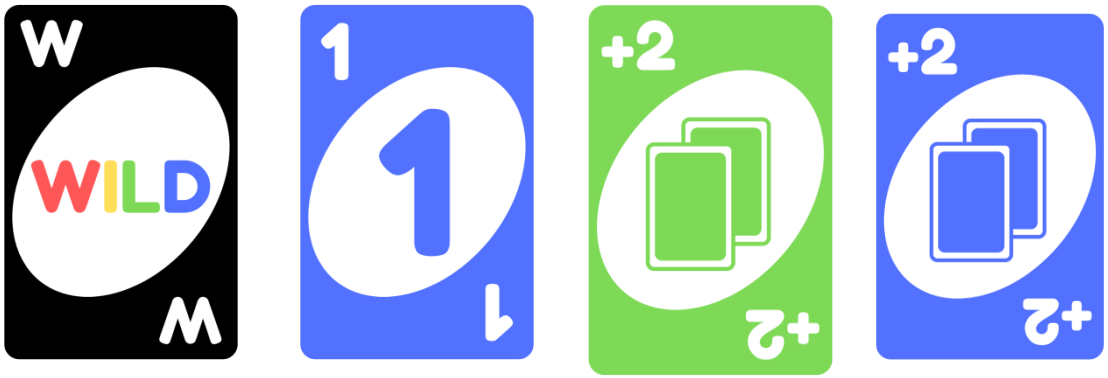
Given: Yellow 1

Prove: Red 2 

Statements	Reasons
1. Yellow 1	1. Given
2. Yellow 0	2. Same Color
3. Red 0	3. Same Number
4. Red 2	4. Same Color

Given: 

Prove: 

Using: 

T-Chart

Given: Blue 2

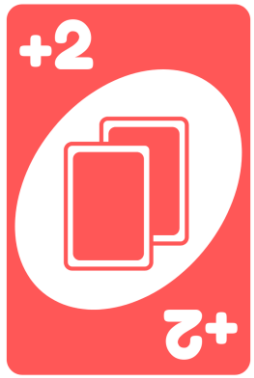
Prove: Red 1

Statements :	Reasons:
1. Blue 2	1. Given
2. Blue Draw 2	2. Same Color
3. Green Draw 2	3. Same Symbol
4. Wild Card	4. Change Color
5. Blue 1	5. Same Color
6. Red 1	6. Same Number

Given: 

Prove: 

Using:



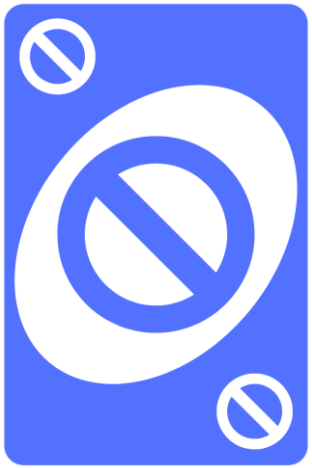
T-Chart

Given: Red 1  Prove: Green 3 

Statements	Reasons
1. Red 1	1. Given
2. Red Draw 2	2. Same Color
3. Red Draw 2	3. Same Symbol
4. Wild	4. Change Color
5. Green 7	5. Same Color
6. Green 3	6. Same Color

Given:

Prove:



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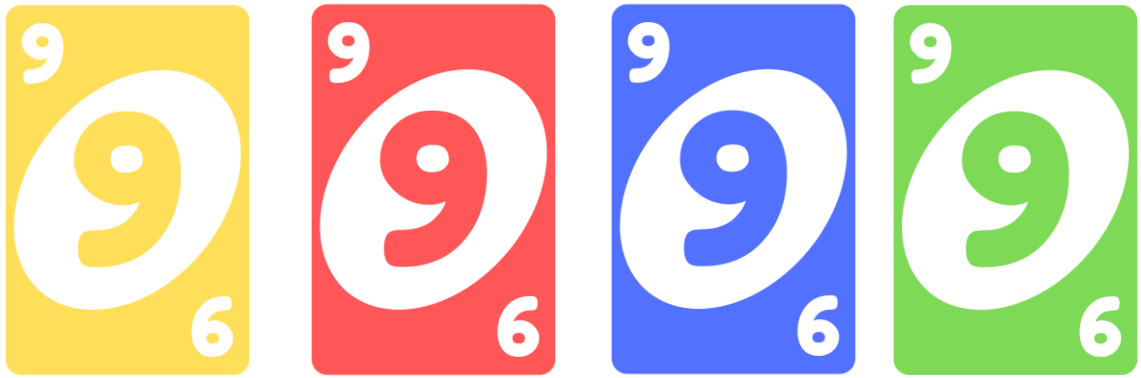
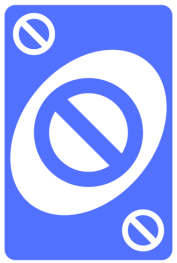


T-Chart

Given: Green Draw 2 

Prove: Blue Skip 

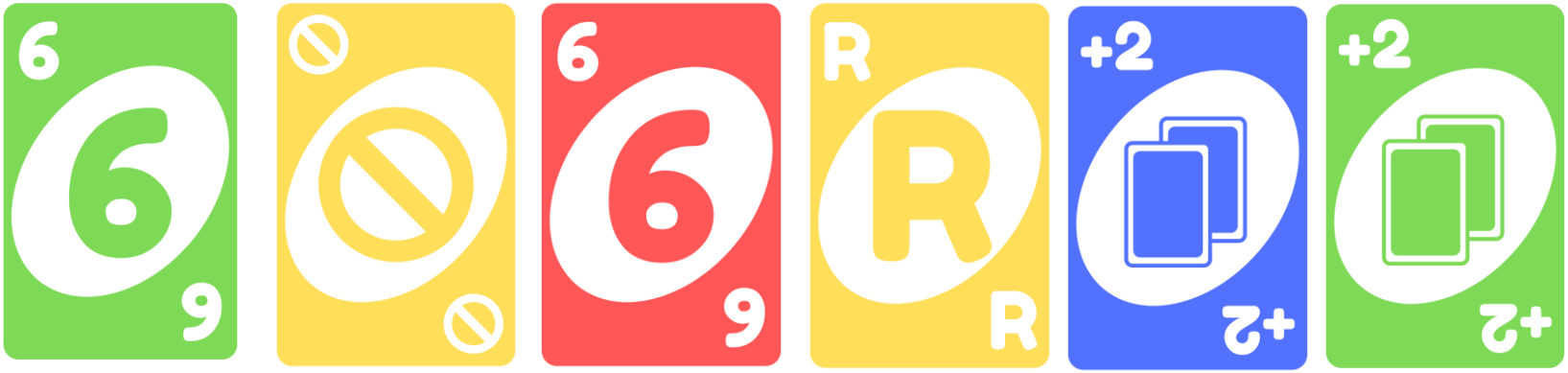
Statements *(What Card to Play):*	Reasons *(I can play this card because):*
1. Green Draw 2	1. Given
2. Green 9	2. Same Color
3. Blue 9	3. Same Number
4. Blue Skip	4. Same Color

The Red 9 does not have to be used. (It is ok to do so, but would require an additional step.)

Given: 

Prove: 

Using:



T-Chart

Given: Blue 9 

Prove: Red 2 

Statements:	Reasons:
1. Blue 9	1. Given
2. Blue Draw 2	2. Same Color
3. Green Draw 2	3. Same Symbol
4. Green 6	4. Same Color
5. Red 6	5. Same Number
6. Red 2	6. Same Color

Not all of the cards were used.