

English to Logic

CS1800 Fall 2025



In Clue, there are...

- Suspects
- Weapons
- Rooms

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was
used

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was
used

W = The candlestick was used

V = The lead pipe was used

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was
used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

Col. Mustard did it in the ballroom

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

Col. Mustard did it in the ballroom

$Q \wedge A$

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

Col. Mustard did it in the ballroom

Q	A	$Q \wedge A$
T	T	T
T	F	F
F	T	F
F	F	F

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*Ms. Scarlet did it or it was in
the conservatory*

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*It was Prof. Plum if the lead
pipe was used*

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*If it wasn't Prof. Plum, then it
couldn't have been the lead pipe*

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*If it wasn't the lead pipe, then it
wasn't Prof. Plum*

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*It is not true that Col. Mustard
did it in the ballroom*

P = Ms. Scarlet did it

Q = Col. Mustard did it

R = Prof. Plum did it

A = The ballroom was used

B = The conservatory was used

W = The candlestick was used

V = The lead pipe was used

Logic should respect the original statement

*It wasn't in the ballroom or
the conservatory*