


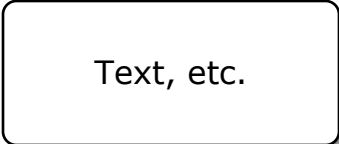
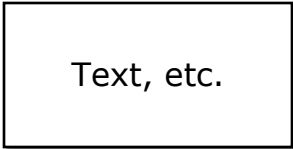
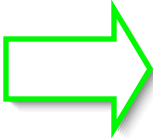
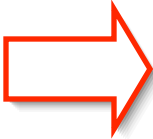



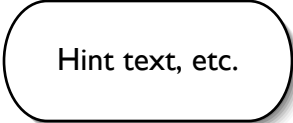


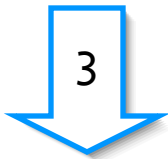
Legend:

State markers:	  
Main user visible content and interface:	
Auxiliary user visible content and interface:	
Correct move:	
Incorrect move:	
Condition:	
Navigational move:	
Feedback content:	
Hint content:	

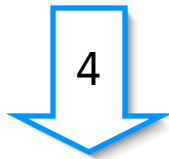
Start

Complete the following derivation by filling in the missing justification. To fill in the justification on a given line, just click anywhere on that line.

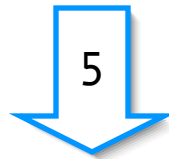
1. A & B	Premise
2. (A v C) → D	Premise
3. A	?
4. A v C	?
5. D	?
6. D & A	?



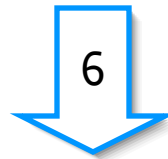
A



B



C



D

Completed derivation:

1. A & B	Premise
2. (A v C) → D	Premise
3. A	&EL: 1
4. A v C	vIR: 3
5. D	→E: 2, 4
6. D & A	&I: 5, 3

A

Complete the correct justification for line 3 using the pull-down menus below to fill in the missing components.

&E

L
R

 :

1
2
3
4
5
6

L

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

R

The variant of the rule determines which conjunct is derived. The left variant corresponds to the left conjunct, and the right variant to the right conjunct.

1

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

2

The formula on line 2 is not a conjunction.

3+

Only lines prior to the current line in the derivation can be cited as justification for a rule's application.

B

Complete the correct justification for line 4 using the pull-down menus below to fill in the missing components.

$\left[\begin{array}{l} \&E \\ \rightarrow E \\ \vee E \\ \&I \\ \vee I \\ \rightarrow I \end{array} \right] \quad \left[\begin{array}{l} L \\ R \end{array} \right] : 3$

$\vee I$

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

R

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

$\&I$
 $\rightarrow I$

You are correct that it is an introduction rule, but you've got the wrong connective.

any
E
rule

This formula doesn't appear as a subformula of any previous line in the derivation, so there's no way to derive it using an elimination rule.

L

The variant of the rule determines which disjunct is added to a formula already present in the derivation. The right variant corresponds to the right disjunct being added, the left to the left disjunct being added.

C

Complete the correct justification for line 5 using the pull-down menus below to fill in the missing components.

→E :

1	1
2	2
3	3
4	4
5	5
6	6

2 → answered only this → Good. Now complete the justification by making a selection from the other pull-down menu.

answered both → That's right.

4 → answered only this → Good. Now complete the justification by making a selection from the other pull-down menu.

answered both → That's right.

1
3 → The formula on line [1/3] is not a conditional.

1
3 → The formula on line [1/3] is not the antecedent of any conditiona in the derivation.

4 → You are correct that the line on which the antecedent of the conditional occurs should be cited, but it should be the second line cited, not the first.

2 → You are correct that the line on which the conditional occurs should be cited, but it should be the first line cited, not the second.

5+ → Only lines prior to the current line in the derivation can be cited as justification for a rule's application.

5+ → Only lines prior to the current line in the derivation can be cited as justification for a rule's application.

D

Complete the correct justification for line 4 using the pull-down menus below to fill in the missing components.

&E	:	3
→E		5
∨E		3, 5
&I		5, 3
∨I		
→I		

&I

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

5, 3

answered only this

Good. Now complete the justification by making a selection from the other pull-down menu.

answered both

That's right.

∨I
→ I

You are correct that it is an introduction rule, but you've got the wrong connective.

3
5

There is no way to derive this formula in the current derivation using a rule that takes only a single line as justification.

any
E
rule

This formula doesn't appear as a subformula of any previous line in the derivation, so there's no way to derive it using an elimination rule.

3, 5

You've got the lines in the wrong order. The line on which the left conjunct appears should be cited first, then the line on which the right conjunct appears.

Hint sequences by state:

