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Comment. These ten rules of proof are truth-preserving. Given true premises, they will always yield true conclusions. This entails that if a proof can be constructed for a given argument, then the argument is valid.

Comment. A number of strategies aid in the discovery of proofs, but there is no substitute for practice. We do not provide any proof-discovery strategies in this book—that is the instructor's job. We do provide plenty of exercises, so there should be no lack of opportunity to practice.

Exercise 2.1.1 Fill in the blanks in the following proofs,

i $P, \sim Q \vdash P \,\&\, \sim Q$

1	(1)	P	_____
_____	(2)	$\sim$Q	A
_____	(3)	P & $\sim$Q	_____

*ii $P \vee Q, \sim Q \vee R,$ _____ $\vdash$ _____

_____	(1)	P $\vee$ Q	A
2	(2)	$\sim$Q $\vee$ R	_____
_____	(3)	_____	_____
_____	(4)	Q	1,3 $\vee$E
_____	(5)	_____	2,4 ___

*iii $P \to Q, P \vee Q \vdash Q$

_____	(1)	P $\to$ Q	A
_____	(2)	P $\vee$ Q	A
3	(3)	$\sim$Q	_____
_____	(4)	P	_____
_____	(5)	_____	_____
_____	(6)	Q	3,5 RAA ___