

Section 2.3 Exercises

David Piper

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	P	Q	$\sim Q$	$P \wedge (\sim Q)$
2.15	T	T	F	F
	T	F	T	T
	F	T	F	F
	F	F	T	F

2.17 Given the following statements P : 15 is odd and Q : 21 is prime. The following are ways of writing their conjunctions and disjunctions in English along with the truth values for each combination.

- (a) $P \vee Q$: Either 15 is odd or 21 is prime and maybe both. True.
- (b) $P \wedge Q$: It is the case that 15 is odd and 21 is prime. False.
- (c) $(\sim P) \vee Q$: Either 15 is even or 21 is prime and maybe both. False.
- (d) $P \wedge (\sim Q)$: It is the case that 15 is odd and that 21 is not prime. True.