

TFL Syntax Exercise
PHI 154 (Eliot) 2021

1. Which of the following are sentences of Truth-functional Logic (TFL)? Indicate with a \checkmark or \times whether each of these is a sentence of TFL. For this exercise, you may use the relaxed bracketing conventions described in *forallx* 6.3

This should overall be an easy and quick exercise for you, but it is designed to get you used to spotting well-formed and poorly-formed sentences of TFL, and to see if there are any cases you're not sure about.

- (a) $P \wedge Q$
- (b) $X \vee Z$
- (c) $\neg Q \vee R$
- (d) $\neg\neg S \wedge \neg T$
- (e) $\wedge R$
- (f) $M \vee D\neg$
- (g) $\neg R \wedge S$
- (h) $N\neg O$
- (i) $Q \vee t$
- (j) $(P \vee Q) \vee (M \vee N)$
- (k) $H \vee \neg J$
- (l) $B \vee C \vee D$
- (m) $\neg\neg\neg\neg\neg\neg D$
- (n) $(M \vee B)$
- (o) $\neg[R \wedge F]$
- (p) $[G \wedge (\neg H \vee (P \wedge R))]\wedge Q$
- (q) $(K \wedge L) \vee \neg\neg M$
- (r) $(K \wedge L) \vee M \wedge C$
- (s) $[P]$
- (t) $A_{611} \vee B_{12}$
- (u) $[M \vee \neg(\neg B \vee A)]$
- (v) $\neg E \wedge (\neg F \vee (G \wedge \neg H))]$