

TFL Symbolization Exercise

PHI 154 (Eliot) Fall 2022

Use the following symbolization key to symbolize each of the numbered sentences in truth-functional logic (TFL). Understand all of these to not have tenses, so “We win” and “We will win” are symbolized the same way.

G = We go.

W = We win.

L = We lose.

T = We try.

1. We won't lose.
2. If we try, we'll win.
3. We will go and try and win.
4. We won't not win.
5. If we go and try, we'll win and not lose.
6. We'll win only if we try.
7. We'll lose if we don't try.
8. We'll lose only if we don't try.
9. We won't lose if we try.
10. We will neither win nor lose.
11. If we go, we'll try and win, and not lose.
12. We'll go but we won't win.
13. We won't go or we won't try, but we won't lose.
14. We'll go and win or go and lose.
15. We'll either win or lose, but not both.
16. We won't both lose and win, if we go.
17. We'll win or lose only if we go.
18. We'll win if we try and lose if we don't.
19. If and only if we try, we'll win.
20. We'll lose if and only if we don't try.
21. We'll win if and only if we try and don't lose.
22. We'll neither go and win nor try and lose.
23. If we try, that's enough to win.
24. If we don't try, that's sufficient for us not to win.
25. We'll lose if and only if we neither go nor try.