TD 6

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Exercise 1. Define the following relations/sets in WSkS:

1. X is the set of sons of Y,
2. X is a branch,
3. X is of even cardinality.

Exercise 2. Define the following languages in WSkS:

1. the set of terms of height at least 3,
2. the set of terms whose branches all have length at least 3,
3. the set of terms that contain an even number of the f function symbol.

Exercise 3. Express that X is finite in S2S.

Exercise 4. Give a valid S2S sentence that is not valid as a WS2S sentence and vice-versa.

Exercise 5. Show that the relation $\{(f(t,t'),t) \mid t,t' \in \mathcal{T}(\mathcal{F})\}$ is not definable in WS2S.