

Übung 3, Aufgabe 3

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val legal_time = λ(h:int, m:int, s:int).
    0 ≤ h andalso h < 24 andalso
    0 ≤ m andalso m < 60 andalso
    0 ≤ s andalso s < 60

val before = λ(h1:int, m1:int, s1:int).
    λ(h2:int, m2:int, s2:int).
    h1 < h2 orelse
    (h1 = h2 andalso (m1 < m2 orelse
        (m1 = m2 andalso s1 < s2)))

val next = λ(h:int, m:int, s:int).
    if s < 59
    then (h, m, s + 1)
    else if m < 59
    then (h, m + 1, 0)
    else (if h < 23 then h + 1 else 0, 0, 0)

val diff = λ(h1:int, m1:int, s1:int).
    λ(h2:int, m2:int, s2:int).
    let val s = s1 - s2
        val m = m1 - m2 + s div 60
        val h = h1 - h2 + m div 60
    in (h mod 24, m mod 60, s mod 60)
    end
```