Here are the steps for a call of a function \texttt{sum}, hiding all the steps containing an \texttt{if} ...

\begin{verbatim}
(step (hide if-introduction) (sum 5))

(+ 5 (sum (dec 5)))
(+ 5 (sum 4))
(+ 5 (+ 4 (sum (dec 4))))
(+ 5 (+ 4 (sum 3)))
(+ 5 (+ 4 (+ 3 (sum (dec 3)))))
(+ 5 (+ 4 (+ 3 (sum 2)))))
(+ 5 (+ 4 (+ 3 (+ 2 (sum (dec 2)))))))
(+ 5 (+ 4 (+ 3 (+ 2 (sum 1)))))
(+ 5 (+ 4 (+ 3 (+ 2 (+ 1 (sum (dec 1)))))))))
(+ 5 (+ 4 (+ 3 (+ 2 (+ 1 (sum 0)))))))
(+ 5 (+ 4 (+ 3 (+ 2 (+ 1 0)))))))
(+ 5 (+ 4 (+ 3 (+ 2 1)))))
(+ 5 (+ 4 (+ 3 3)))))
(+ 5 (+ 4 6))
(+ 5 10)
15
\end{verbatim}

; Write down a Design that is full for the case when the argument is positive ...
(true! (positive? 3))

; ... by filling in the following assertion to match its step as shown (without if) above ...
(same! (sum 3))

; Write down a Design that is full for the case when the argument is zero ...
(true! (zero? 0)) ; ... by filling in the following assertion to match the step as shown above ...
(same! (sum 0))

; Define \texttt{sum} accordingly, so that the step statement above produces the steps shown ...
; Here are the steps for a call of a function sum.tail , hiding all the steps containing an if ...

(step (hide if-introduction) (sum.tail 0 5))

(sum.tail (+ 0 5) (dec 5))
(sum.tail 5 4)
(sum.tail (+ 5 4) (dec 4))
(sum.tail 9 3)
(sum.tail (+ 9 3) (dec 3))
(sum.tail 12 2)
(sum.tail (+ 12 2) (dec 2))
(sum.tail 14 1)
(sum.tail (+ 14 1) (dec 1))
(sum.tail 15 0)
15

; Write down a Design that is full for the case when the second argument is positive ...
(true! (positive? 3)); ... by filling in the following assertion to match the step as shown above ...
(same! (sum.tail 9 3))

; Write down a Design that is full for the case when the second argument is zero ...
(true! (zero? 0)); ... by filling in the following assertion to match the step as shown above ...
(same! (sum.tail 15 0))

; Define sum.tail accordingly, so that the step statement above produces the steps shown ...