ADDING BY COUNTING: RECURSIVE AND ITERATIVE PROCESSES

Consider the following procedure which will allow adding of two natural numbers. Note that \texttt{inc} and \texttt{dec} are primitives for incrementing and decrementing integers (respectively):

\begin{verbatim}
(define (add a b)
  (if (= a 0)
      b
      (inc (add (dec a) b))))
\end{verbatim}

\textbf{Question 1:} Using the substitution model, write out what happens if we evaluate \texttt{(add 4 5)}.

\footnote{This is from Exercise 1.9 of \textit{SICP}.}
Now the add procedure looks like this:

```
(define (add a b)
  (if (= a 0)
      b
      (add (dec a) (inc b))))
```

**Question 2:** Using the substitution model, write out what happens now if we evaluate `(add 4 5)`. 
