Recursion EXERCISES
Work with your neighbor.

1. Write a recursive function \texttt{sumlist(L)} that returns the sum of the elements in \texttt{L}.
   
   What is the base case?

   What is the recursive case?

2. Write a recursive function \texttt{string_len(s)} that returns the length of string \texttt{s}.

   What is the base case?

   What is the recursive case?
3. Write a recursive function that \texttt{join\_all(alist)} that takes a list \texttt{alist} and returns a string consisting of every element of \texttt{alist} concatenated together.

What is the base case?

What is the recursive case?

4. Write a recursive function that implements \texttt{join}. That is, write a function \texttt{join(alist, sep)} that takes a list \texttt{alist} and returns a string consisting of every element of \texttt{alist} separated by the string \texttt{sep}.

What is the base case?

What is the recursive case?