The Environment Interface

Exercise 2.4

$$(\texttt{empty-stack}) = \lceil \emptyset \rceil$$

$$(\texttt{push } v \ \lceil s \rceil) = \lceil r \rceil,$$
$$\text{where} (\texttt{top } \lceil r \rceil) = v$$

$$(\texttt{pop } \lceil s \rceil) = \lceil r \rceil,$$
$$\text{where} (\texttt{pop } (\texttt{push } v \ \lceil r \rceil)) = \lceil r \rceil$$

$$(\texttt{top } \lceil s \rceil) = v$$

$$(\texttt{empty-stack? } \lceil s \rceil) = \begin{cases} \#t & \lceil s \rceil = \lceil \emptyset \rceil \\ \#f & \text{otherwise} \end{cases}$$