Contextual Typing

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→ Implementation can be easily derived.

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→ Types are propogated to neighbouring expressions;

TYPING RULES

$$\frac{\Gamma \vdash e_1 \Rightarrow A \rightarrow B \qquad \Gamma \vdash e_2 \Leftarrow A}{\Gamma \vdash e_1 \ e_2 \Rightarrow B} \ \text{Arr} \qquad\qquad \frac{\Gamma, x : A \vdash e \Rightarrow B}{\Gamma \vdash \lambda x. \ e \Leftarrow A \rightarrow B} \ \text{Lam}$$