

Lambda Terms

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18-10-2017

1 Exercise

Assign suitable lambda-term to the words below:

- ▶ and
- ▶ tall
- ▶ smart
- ▶ who
- ▶ didn't

so to obtain compositionally the meaning representation of the expressions below

- ▶ John and Mary left
- ▶ tall smart student
- ▶ student who knows Mary
- ▶ John didn't leave

2 Solution

- ▶ and $\lambda x.\lambda y.\lambda Z.Z(x) \wedge Z(y)$
- ▶ tall $\lambda X.\lambda y.\text{tall}(y) \wedge X(y)$
- ▶ smart $\lambda X.\lambda y.\text{Smart}(y) \wedge X(y)$
- ▶ who $\lambda X.\lambda Y.\lambda z.X(z) \wedge X(z)$
- ▶ didn't $\lambda X.\lambda y.\neg X(y)$