

## Phase 11 d : Lambda Expressions

Lambda expressions provide a concise way to define anonymous functions.

**(a)**

Simple lambda expression

$$\lambda x : \mathbb{N} \bullet x^2$$

**(b)**

Multi-variable lambda

$$\lambda x, y : \mathbb{N} \bullet x \wedge y$$

**(c)**

Lambda with comparison

$$\lambda x : \mathbb{N} \bullet x > 0$$

**(d)**

Nested lambda expression

$$\lambda x : X \bullet \lambda y : Y \bullet x \wedge y$$

**(e)**

Lambda with quantifier in body

$$\lambda x : X \bullet \forall y : Y \bullet x \vee y$$