

## 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

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