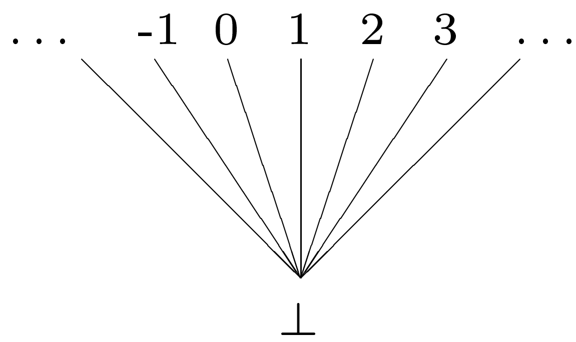
Flat Base-Domains

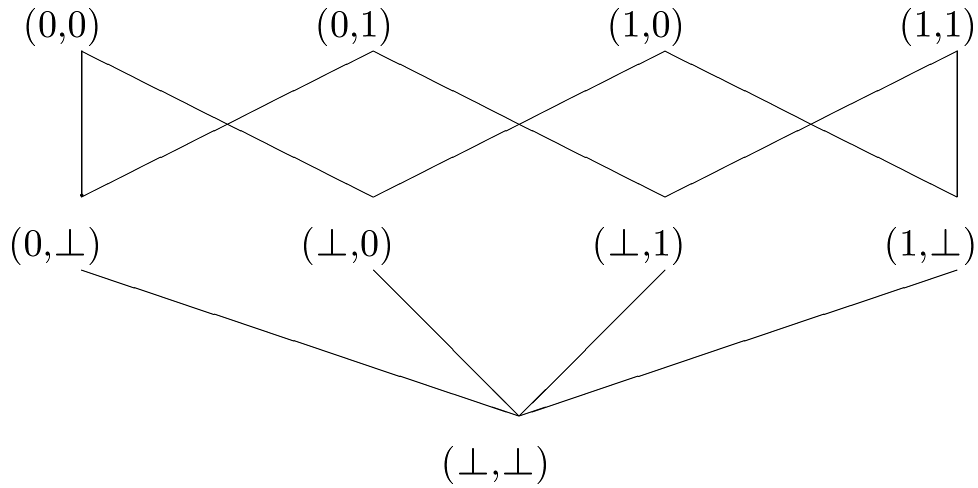
($\mathbb{Z}_\perp$, $\mathbb{B}_\perp$, $C_\perp$, $F_\perp$)



$$d \sqsubseteq_D d' \quad \text{iff} \quad d = \perp_D \text{ or } d = d'$$

Product Domains

($\mathbb{Z}_\perp \times \mathbb{Z}_\perp$, etc.)



$(d_1, \ldots, d_n) \sqsubseteq_D (d'_1, \ldots d'_n)$ iff
$d_i \sqsubseteq_{D_i} d'_i$ for all $1 \leq i \leq n$

Function Domains

(subset of $\mathbb{Z}_\perp \to \mathbb{Z}_\perp$, etc.)

$$f \sqsubseteq_{D_1 \to D_2} g \quad \text{iff} \quad f(d) \sqsubseteq_{D_2} g(d) \text{ for all } d \in D_1.$$

Strict and Non-Strict Functions

$f : D_1 \times \ldots \times D_n \rightarrow D$ is *strict* iff
$f(d_1, \ldots, d_n) = \perp_D$ whenever $d_i = \perp_{D_i}$ for some i.

```
one :: Int -> Int
one x = 1
```

Choices for the semantics of `one`:

(a)	$f_1(x) = 1$ for $x \in \mathbb{Z}$	$f_1(\perp) = 1$	(non-strict)
(b)	$f_2(x) = 1$ for $x \in \mathbb{Z}$	$f_2(\perp) = \perp$	(strict)
(c)	$f_3(x) = 1$ for $x \in \mathbb{Z}$	$f_3(\perp) = 0$	(not computable)