

### Sample solution for Pierce 22.2.3.

Here are three possible solutions. Note that the second component of a solution is the type of the entire term, not just of the innermost body. *Any* solution must be a substitution instance of the first one shown.

```
( [X ↦ Z → U → V, Y ↦ Z → U],  
  (Z → U → V) → (Z → U) → Z → V)  
( [X ↦ Nat → Nat → Nat, Y ↦ Nat → Nat, Z ↦ Nat],  
  (Nat → Nat → Nat) → (Nat → Nat) → Nat → Nat)  
( [X ↦ Nat → W → Nat → Nat, Y ↦ Nat → W, Z ↦ Nat],  
  (Nat → W → Nat → Nat) → (Nat → W) → Nat → Nat → Nat)
```