

```
addition :: Int -> Int -> Int
addition x y = (x + y)
```

Haskell

```
addition_r8m :: GHC.Types.Int -> GHC.Types.Int -> GHC.Types.Int
[GblId, Arity=2, Str=DmdType]
addition_r8m =
  \ (x_a9l :: GHC.Types.Int) (y_a9m :: GHC.Types.Int) ->
    GHC.Num.+ @ GHC.Types.Int GHC.Num.$fNumInt x_a9l y_a9m
```

Core

```
addition_r8m :: GHC.Types.Int -> GHC.Types.Int -> GHC.Types.Int
[GblId, Arity=2, Str=DmdType, Unf=OtherCon []] =
  sat-only \r srt:SRT:[(r9o, GHC.Num.$fNumInt)] [x_smq y_smr]
    GHC.Num.+ GHC.Num.$fNumInt x_smq y_smr;
```

Stg

```
...
cmG:
  R2 = GHC.Num.$fNumInt_closure;    // CmmAssign
  I64[(old + 32)] = stg_ap_pp_info;  // CmmStore
  P64[(old + 24)] = _smo::P64;      // CmmStore
  P64[(old + 16)] = _smp::P64;      // CmmStore
  call GHC.Num.+_info(R2) args: 32, res: 0, upd: 8;    // CmmCall
...
```

Cmm

```
...
_cmG:
  movq %r14,%rax
  movl $GHC.Num.$fNumInt_closure,%r14d
  movq $stg_ap_pp_info,-24(%rbp)
  movq %rax,-16(%rbp)
  movq %rsi,-8(%rbp)
  addq $-24,%rbp
  jmp GHC.Num.+_info
...
```

x64  
assembly