

# Interpreting Arithmetic

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# Modeling Syntax

```
1 (define-type AE
2   [num (n number?)]
3   [add (left AE?) (right AE?)]
4   [sub (left AE?) (right AE?)])
5
6 ;; calc : AE -> number
7 (define (calc an-ae)
8   (type-case AE an-ae
9     [num (n) n]
10    [add (l r) (+ (calc l) (calc r))]
11    [sub (l r) (- (calc l) (calc r))]))
```