


```

1 samples = [3.0, 4.0, 5.0, 6.0]
2
3 range xs = length xs
4
5 mean xs = sum xs / range xs
6
7 sd xs = sqrt (variance xs)
8
9 variance xs =
10  map (\x -> (x - mean xs) ^ 2 / range xs) xs

```

```

> ghc Main.hs
[1 of 2] Compiling Main                ( Main.hs, Main.o )

Main.hs:5:18: error:
  • Could not deduce (Fractional Int) arising from a use
    of '/'
    from the context: Foldable t
      bound by the inferred type of mean :: Foldable t =>
> t Int -> Int
      at Main.hs:5:1-27
  • In the expression: sum xs / range xs
    In an equation for 'mean': mean xs = sum xs / range
xs
5 | mean xs = sum xs / range xs
  |                      ^

Main.hs:7:9: error:
  • No instance for (Floating [Int]) arising from a use
    of 'sqrt'
  • In the expression: sqrt (variance xs)
    In an equation for 'sd': sd xs = sqrt (variance xs)
7 | sd xs = sqrt (variance xs)
  |          ^^^^

Main.hs:9:44: error:
  • No instance for (Fractional Int) arising from a use
    of '/'
  • In the expression: (x - mean xs) ^ 2 / range xs
    In the first argument of 'map', namely
      '(\ x -> (x - mean xs) ^ 2 / range xs)'
    In the expression: map (\ x -> (x - mean xs) ^ 2 / r
ange xs) xs
9 | variance xs = map (\x -> (x - mean xs) ^ 2 / range xs

```