```
Exit[]

a = {1, 2, 3, 4, 5}; A = 4;

p[i_, x_] := Exp[(a[[i]] - A) * x]

NSolve[Sum[p[i, x], {i, 1, 5}] == 6, x]
```

Solve::ifun : Inverse functions are being used by Solve, so some
    solutions may not be found; use Reduce for complete solution information. ≫

$\{\{x \to -0.69866 - 2.20459\,\mathbb{i}\},\{x \to -0.69866 + 2.20459\,\mathbb{i}\},\{x \to -0.157612\},\{x \to 1.55493\}\}$

```
Plot[{Sum[p[i, x], {i, 1, 5}], 6}, {x, 0, 2}]
```