

```

getGDDvector(temp, TBase) := || i ← ORIGIN
                             || while i ≤ last(temp) - 23
                             || || chunk ← submatrix(temp, i, i + 23, ORIGIN, ORIGIN)
                             || || GDD ←  $\frac{\max(chunk) + \min(chunk)}{2} - TBase$ 
                             || || i ← i + 24
                             || GDD

```

$Data := \text{READExcel}(\text{".\Datos clima 26..02.2014 - 1..01.2015.xlsx"})$

$DateTime := Data^{(ORIGIN)}$

```

firstIndex := || i ← ORIGIN + 4
               || while DateTimei > trunc(DateTimei)
               || || i ← i + 1
               || i

```

Get the row number of the first Date with time 00:00

$Temps := \text{submatrix}(Data^{(3)}, firstIndex, last(Data^{(3)}), ORIGIN, ORIGIN)$ *Select the temperature values and get rid of the four header lines*

$Temps := \text{filterNaN}(Temps)$

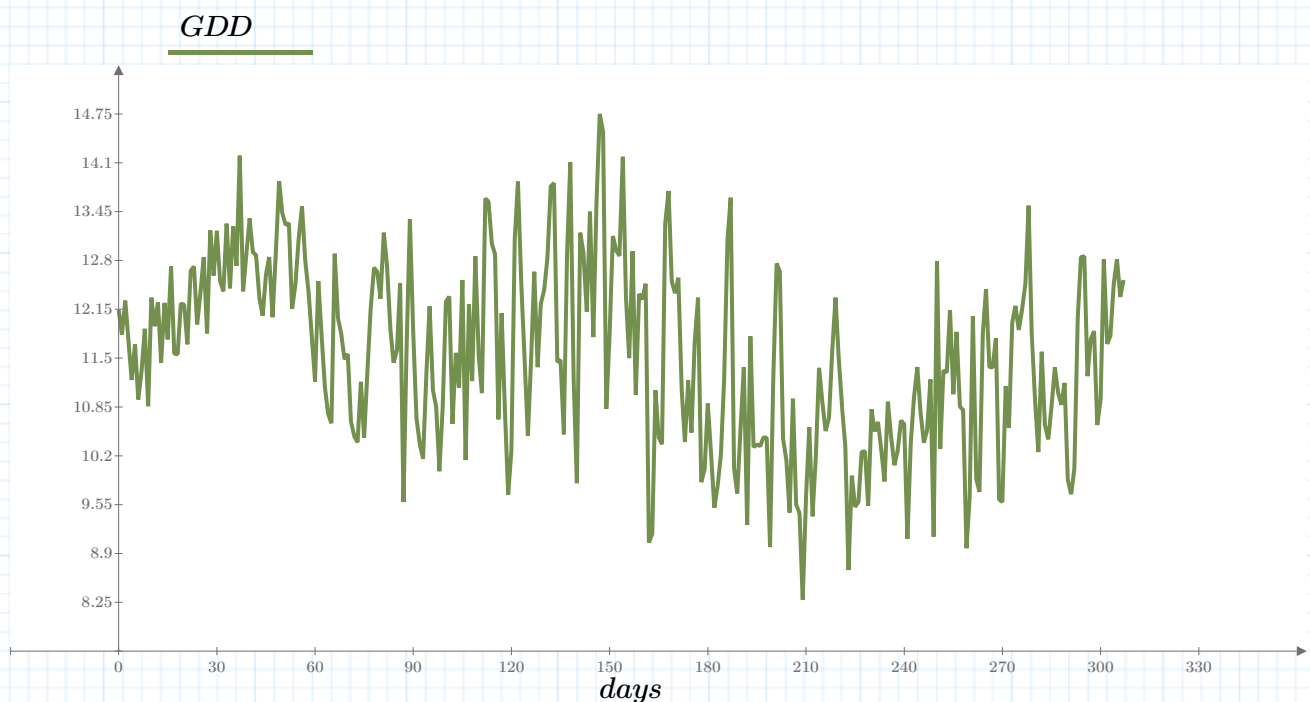
Get rid of the non-datat lines at the end

$GDD := \text{getGDDvector}(Temps, 12.3)$

Calculate the GDD values

$days := ORIGIN .. last(GDD) = \begin{bmatrix} 0 \\ 1 \\ \vdots \end{bmatrix}$

A quick and dirty way to generate a vector with consecutive numbers the same size as GDD



cumulative data

$$i := \text{ORIGIN} + 1 \dots \text{last}(GDD) \quad GDDc := GDD \quad GDDc_i := GDD_i + GDDc_{i-1}$$

Or you may use a utility function

$$\text{cumulate}(v) := \left\| \begin{array}{l} \text{for } i \in \text{ORIGIN} + 1 \dots \text{last}(v) \\ \left\| \begin{array}{l} v_i \leftarrow v_i + v_{i-1} \\ v \end{array} \right\| \end{array} \right\|$$

$$GDDc := \text{cumulate}(GDD)$$

