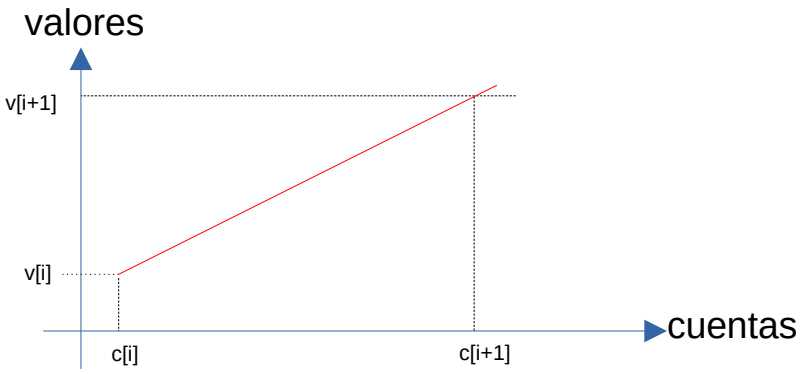
Pendiente Positiva



$$y=ax+b$$
$$c[i]\rightarrow v[i]$$
$$c[i+1]\rightarrow v[i+1]$$

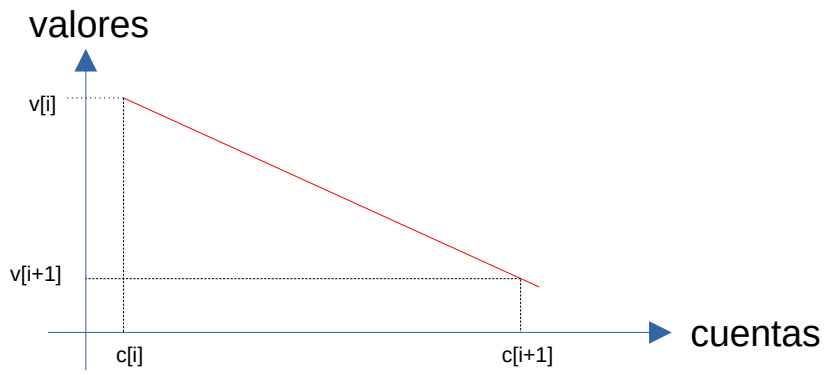
$$(1)\ \ v[i]=ac[i]+b$$
$$(2)\ \ v[i+1]=ac[i+1]+b$$

$$(1)\ -\ (2)$$
$$v[i]-v[i+1]=ac[i]-ac[i+1]$$
$$v[i]-v[i+1]=a(c[i]-c[i+1])$$
$$(3)\ \ a=\frac{v[i]-v[i+1]}{c[i]-c[i+1]}$$
$$(3)\ \ en\ \ (1)$$
$$v[i]\ =\ \frac{v[i]-v[i+1]}{c[i]-c[i+1]}c[i]\ +\ b$$
$$b\ =\ v[i]\ -\ \frac{v[i]-v[i+1]}{c[i]-c[i+1]}c[i]$$
$$b\ =\ v[i]\ -\ \frac{c[i]v[i]-c[i]v[i+1]}{c[i]-c[i+1]}$$
$$b\ =\ \frac{c[i]v[i]-c[i+1]v[i]-c[i]v[i]+c[i]v[i+1]}{c[i]-c[i+1]}$$
$$b\ =\ \frac{\cancel{c[i]v[i]}-c[i+1]v[i]-\cancel{c[i]v[i]}+c[i]v[i+1]}{c[i]-c[i+1]}$$
$$b\ =\ \frac{c[i]v[i+1]-c[i+1]v[i]}{c[i]-c[i+1]}$$

→

$$y\ =\ ax\ +\ b\ \rightarrow$$
$$y\ =\ \frac{v[i]-v[i+1]}{c[i]-c[i+1]}x\ +\ \frac{c[i]v[i+1]-c[i+1]v[i]}{c[i]-c[i+1]}$$

Pendiente Negativa



$$y=-ax+b$$
$$c[i]\rightarrow v[i]$$
$$c[i+1]\rightarrow v[i+1]$$

$$(1)\ \ v[i]=-ac[i]+b$$
$$(2)\ \ v[i+1]=-ac[i+1]+b$$

$$(1)\ -\ (2)$$
$$v[i]-v[i+1]=-ac[i]+ac[i+1]$$
$$v[i]-v[i+1]=a(c[i+1]-c[i])$$
$$(3)\ \ a=\frac{v[i]-v[i+1]}{c[i+1]-c[i]}$$
$$(3)\ \ en\ \ (1)$$
$$v[i]\ =\ -\frac{v[i]-v[i+1]}{c[i+1]-c[i]}c[i]\ +\ b$$
$$b\ =\ v[i]\ -\ \frac{v[i+1]-v[i]}{c[i+1]-c[i]}c[i]$$
$$b\ =\ v[i]\ -\ \frac{c[i]v[i+1]-c[i]v[i]}{c[i+1]-c[i]}$$
$$b\ =\ \frac{c[i+1]v[i]-c[i]v[i]+c[i]v[i]-c[i]v[i+1]}{c[i+1]-c[i]}$$
$$b\ =\ \frac{c[i+1]v[i]-\cancel{c[i]v[i]+c[i]v[i]}-c[i]v[i+1]}{c[i+1]-c[i]}$$
$$b\ =\ \frac{c[i+1]v[i]-c[i]v[i+1]}{c[i+1]-c[i]}$$

→

$$y\ =\ ax\ +\ b\ \rightarrow$$
$$y\ =\ \frac{v[i]-v[i+1]}{c[i+1]-c[i]}x\ +\ \frac{c[i+1]v[i]-c[i]v[i+1]}{c[i+1]-c[i]}$$

→ *Pendiente Positiva*

$$y = ax + b \rightarrow$$

$$y = \frac{v[i]-v[i+1]}{c[i]-c[i+1]}x + \frac{c[i]v[i+1]-c[i+1]v[i]}{c[i]-c[i+1]}$$

→ *Pendiente Negativa*

$$y = -ax + b \rightarrow$$

$$y = \frac{v[i+1]-v[i]}{c[i]-c[i+1]}x + \frac{c[i]v[i+1]-c[i+1]v[i]}{c[i]-c[i+1]}$$

Para el código:

→ *Pendiente Positiva*

$$y = ax + b \rightarrow$$

$$y = \frac{v[i-1]-v[i]}{c[i-1]-c[i]}x + \frac{c[i-1]v[i]-c[i]v[i-1]}{c[i-1]-c[i]}$$

→ *Pendiente Negativa*

$$y = -ax + b \rightarrow$$

$$y = \frac{v[i]-v[i-1]}{c[i-1]-c[i]}x + \frac{c[i-1]v[i]-c[i]v[i-1]}{c[i-1]-c[i]}$$