1 How to interpolate

The function is linear for the speed > 1400. Only speeds < 1400 are not 100% linear.

If we may use the linear interpolation, this is the way to do it:
1.1 Interpolate the speed

Define the function for the speed:
The speed is linear so the function of the form:

\[ y = mx + b \]

Where:
- \( m \) is the slope, and
- \( b \) is the y-intercept

1.1.1 Slope \( m \)

For lines like these, the slope is always defined as "the change in y over the change in x"
or, in equation form:

\[ \frac{y_2 - y_1}{x_2 - x_1} \]

To define \( m \), we have to define the 2 points on the speed line or:

\[ m = \frac{Sy_2 - Sy_1}{Sx_2 - Sx_1} \]
\[
\begin{align*}
\text{Sx1} &= 270 \\
\text{Sx2} &= 275 \\
\text{Sy1} &= \text{interpolation of speed between the Bottom-speed and the Top-speed} = \text{between By1 and Ty1}.
\end{align*}
\]
\[
\begin{align*}
\text{Sy2} &= \text{interpolation of speed between the Bottom-speed and the Top-speed} = \text{between By2 and Ty2}.
\end{align*}
\]

1.1.2 \textbf{y-intersect} \\
To define the intersection we use one of the known values for \(\text{temp}= 270 \text{ and } 275 \Rightarrow \text{Sy1 and Sy2}\)
\[
\begin{align*}
\text{b} &= y - mx = \text{Sy1} - m \times 270 \ (\text{or} = \text{Sy2} - m \times 275)
\end{align*}
\]

1.2 \textbf{Find Mass} \\
The mass to find is the intersection between:
\[
\begin{align*}
x &= \text{temp}
\end{align*}
\]
and the found function of the speed line:
\[
\begin{align*}
y &= mx + b
\end{align*}
\]