$$\begin{aligned}
t &= 2\left(\frac{x-a}{b-a}\right) - 1 \\
&= 2\left(\frac{x-2}{b-a}\right) - 1 \\
&= 2\left(\frac{x-2}{5-2}\right) - 1 \\
&= 2\left(\frac{x-2}{5-2}\right) - 1 \\
&= 2\left(\frac{x-2}{3}\right) - 1
\end{aligned}$$

$$\begin{aligned}
x &= 2 \Rightarrow \begin{cases} 2-2 \\ 1 &= 2 \end{cases} \\
x &= 2 \Rightarrow \end{cases} + 2 \Rightarrow \begin{cases} 2-2 \\ 1 &= 2 \end{cases} - 1 \\
&= 2 \Rightarrow \end{cases} + 2 \Rightarrow \begin{cases} 3 &= 1 \\ 4 &= 2 \Rightarrow \end{cases} + 2 \Rightarrow \end{cases}$$