

I want to solve this equation for x: $\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0$

$$\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0 \text{ solve, x} \rightarrow$$

Hmmm, this doesn't work. In previous version of MACAD it returned as result in terms of the Lambert function.

$$\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0 \left| \begin{array}{l} \text{solve, x} \\ \text{float, 6} \end{array} \right. \rightarrow$$

And neither does the trick used for the previous version of MACAD. This was the method to get around MACAD returning a result in terms of a Lambert function.

But using the "fully" modifier provides a "result"-

$$\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0 \text{ solve, x, fully} \rightarrow \left(\begin{array}{c} 3.5911214766686221366 \\ _c1 \end{array} \right) \text{ if } R_s = 0 \wedge _c1 \in \mathbb{C}$$

$$3.5911214766686221366 \text{ if } R_s \neq 0$$

and also

$$\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0 \left| \begin{array}{l} \text{solve, x, fully} \\ \text{float, 6} \end{array} \right. \rightarrow \left(\begin{array}{c} 3.59112 \\ _c1 \end{array} \right) \text{ if } R_s = 0 \wedge _c1 \in \mathbb{C}$$

$$3.59112 \text{ if } R_s \neq 0$$

But oddly, the following does not produce a result. Why?

$$\frac{1}{2} \cdot R_s \cdot \frac{\ln(x) \cdot x - x - 1}{\eta \cdot b \cdot \ln(x)^2 \cdot x} = 0 \left| \begin{array}{l} \text{assume, } R_s \neq 0 \\ \text{solve, x} \end{array} \right. \rightarrow$$

Is there a better way to do this?