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1 The aim of the package

The package was developed as an answer to question on tex.stackexchange.com

Package was developed to give the tool to make «perfect» explanation for formulas, not just the enumeration.

2 Similar packages

Nomencl: http://ctan.org/pkg/nomencl

3 Contributors

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The package currently hosted on GitHub: https://github.com/konstantin-morenko/latex-equation-explanation

4 Architecture

The list consist of few lengths:

• width of «intro» section (default is empty, 0pt);
• width of spaces between elements (default is 2mm);
• width of item block (default is 5mm);
• width of separator (default is '—');
• the rest of the width of a text (used to align left side of the explanation text).
5 Test list

This list used for all examples:
- \( U \) — voltage at the section, V;
- \( Rs \) — total section resistance, Ohm.

\( Very^{46} \) — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

6 Configure and examples

6.1 Setting eqexplSetSpace

Set \eqexplSetSpace{0mm}
- \( U \) — voltage at the section, V;
- \( Rs \) — total section resistance, Ohm.

\( Very^{46} \) — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \eqexplSetSpace{} (default 2mm)
- \( U \) — voltage at the section, V;
- \( Rs \) — total section resistance, Ohm.

\( Very^{46} \) — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \eqexplSetSpace{10mm}
- \( U \) — voltage at the section, V;
- \( Rs \) — total section resistance, Ohm.

\( Very^{46} \) — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

6.2 Setting eqexplSetIntro

Set \eqexplSetIntro{where}

where
- \( U \) — voltage at the section, V;
- \( Rs \) — total section resistance, Ohm.
Very\textsuperscript{46} — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\eqexplSetIntro{\textit{where we have}}} where we have $U$ — voltage at the section, V;

$Rs$ — total section resistance, Ohm.

Very\textsuperscript{46} — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

6.3 Setting \texttt{\eqexplSetDelim}

Set \texttt{\eqexplSetDelim{---}} (default)

$U$ — voltage at the section, V;

$Rs$ — total section resistance, Ohm.

Very\textsuperscript{46} — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\eqexplSetDelim{=}}

$U =$ voltage at the section, V;

$Rs =$ total section resistance, Ohm.

Very\textsuperscript{46} = very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\eqexplSetDelim{$\to$}}

$U \to$ voltage at the section, V;

$Rs \to$ total section resistance, Ohm.

Very\textsuperscript{46} $\to$ very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

6.4 Setting \texttt{\eqexplSetItemWidth}

Set \texttt{\eqexplSetItemWidth{5mm}} (default)

$U$ — voltage at the section, V;
Rs — total section resistance, Ohm.

Very\textsuperscript{46} — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\textbackslash eqexpl\texttt{SetItemWidth}\{10mm\}}

\begin{align*}
U & \text{ — voltage at the section, V;} \\
Rs & \text{ — total section resistance, Ohm.}
\end{align*}

Very\textsuperscript{46} — very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

\section*{6.5 Setting item width for 'begin-end' block}

When we have a long variable name (for example \texttt{very-very-long}), it could lead us to overwhelming the variable name as in example below

\begin{align*}
\texttt{long} & \text{ — just variable} \\
\texttt{very-long} & \text{ — just variable} \\
\texttt{very-very-long} & \text{ — just variable}
\end{align*}

User could set a parameter to environment to use custom item width for current block in opposition to setting it before block to new value and unsetting it to default after the end of the block. For this purpose use \texttt{\textbackslash begin\{eqexpl\}[width]}.

Set \texttt{\textbackslash begin\{eqexpl\}\{10mm\}}

\begin{align*}
\texttt{long} & \text{ — just variable} \\
\texttt{very-long} & \text{ — just variable} \\
\texttt{very-very-long} & \text{ — just variable}
\end{align*}

Test for backing to default in next block

\begin{align*}
\texttt{long} & \text{ — just variable} \\
\texttt{very-long} & \text{ — just variable} \\
\texttt{very-very-long} & \text{ — just variable}
\end{align*}

Set \texttt{\textbackslash begin\{eqexpl\}\{20mm\}}

\begin{align*}
\texttt{long} & \text{ — just variable} \\
\texttt{very-long} & \text{ — just variable} \\
\texttt{very-very-long} & \text{ — just variable}
\end{align*}

Test for backing to default in next block

\begin{align*}
\texttt{long} & \text{ — just variable} \\
\texttt{very-long} & \text{ — just variable} \\
\texttt{very-very-long} & \text{ — just variable}
\end{align*}
6.6 Setting eqexplItemAlign

Set \texttt{\textbackslash eqexplSetItemAlign\{r\}} (default)

| U   | voltage at the section, V; |
| Rs  | total section resistance, Ohm. |

\textit{Very} very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\textbackslash eqexplSetItemAlign\{l\}}

| U   | voltage at the section, V; |
| Rs  | total section resistance, Ohm. |

\textit{Very} very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;

Set \texttt{\textbackslash eqexplSetItemAlign\{c\}}

| U   | voltage at the section, V; |
| Rs  | total section resistance, Ohm. |

\textit{Very} very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very very long line;