The **aligned-overset** package

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This package allows the base character of \texttt{\textbackslash underset} or \texttt{\textbackslash overset} to be used as the alignment position for the amsmath aligned math environments.

1 Example

The naive way to align at an operator annotated by \texttt{\textbackslash overset} would be

\begin{align*}
f(x) & \overset{\text{Def}}{=} x + x \\
& = 2x
\end{align*}

This results in

\[ f(x) \overset{\text{Def}}{=} x + x = 2x \]

But here, the two equal signs are not aligned.

Using this package, this can be fixed by writing

\begin{align*}
f(x) & \overset{\text{Def}}{=} x + x \\
& = 2x
\end{align*}

which result in correct alignment:

\[ f(x) \overset{\text{Def}}{=} x + x = 2x \]

2 Usage

To add an alignment point at an \texttt{\textbackslash overset} or \texttt{\textbackslash underset}, add a & before the base symbol. The & should not be enclosed in braces, even if the symbols are enclosed in braces. For example you have to write \texttt{\textbackslash overset\{\texttt{\textbackslash approx}\}&\ge} instead of \texttt{\textbackslash overset\{\approx\}&\ge}.

\[ * \text{This document corresponds to \texttt{aligned-overset} 0.1.0, dated 2018/04/04.} \]
3 The implementation

\let\__alignedsets_original_overset:nn\overset\let\__alignedsets_original_underset:nn\underset
\cs_set:Npn\overset\cs_set:Npn\underset
\NewExpandableDocumentCommand\__alignedsets_modified_overset:nwn{mt{&}m}{\__alignedsets_modified_underset:nwn{mt{&}m}}{
\begin{group}
\__alignedsets_original_overset:nn\mathclap{#1}{#3}
\end{group}
\hspace{\dim_eval:n{\box_wd:N\l__alignedsets_full_box\box_wd:N\l__alignedsets_clap_box}/2}
\exp_args:NNNx
\begin{group}
\__alignedsets_original_underset:nn{#1}{#3}
\end{group}
}

(End definition for \overset. This function is documented on page 1.)

\underset
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