

Include << C:\ProgramData\MC Sec\MC Sec.mcdx

TEST - Search functions - American

Search for a section with a "Field" value greater or equal to the specified "Value"
Output is sorted according to the "Sorting" property.

Search for second moment of area $F := "I_y"$ $V := 3600 \text{ in}^4$
Sort results over weight $S := "W"$

$\text{search_asc}\left(F, \frac{V}{1 \text{ mm}^4}, S\right) = \text{"W360X900;W14X605;W14X665;W360X990;W14X730;W360X1086;"}$

To get an array with sections

$\text{Res} := \text{Search}_{\text{asc}}(F, V, S) = \begin{bmatrix} \text{"W360X900"} \\ \text{"W14X605"} \\ \text{"W14X665"} \\ \text{"W360X990"} \\ \text{"W14X730"} \\ \text{"W360X1086"} \end{bmatrix}$

To get a matrix with sections and properties

$\text{SearchTable}_{\text{asc}}(F, V, S) = \begin{bmatrix} \text{"Names"} & \text{"I_y"} & \text{"W"} \\ \text{" " } & \text{"mm}^4 & \text{"kg/m"} \\ \text{"W360X900"} & 1530000000 & 900 \\ \text{"W14X605"} & 1531731646.2 & 900.3 \\ \text{"W14X665"} & 1735685044.8 & 989.6 \\ \text{"W360X990"} & 1740000000 & 990 \\ \text{"W14X730"} & 1964612328.8 & 1086.4 \\ \text{"W360X1086"} & 1960000000 & 1090 \end{bmatrix}$

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