Cases

\(\text{Cases}[\{e_1, e_2, \ldots\}, \text{pattern}]\) gives a list of the \(e_i\) which match the pattern.

\(\text{Cases}[\{e_1, \ldots\}, \text{rhs, pattern}]\) gives a list of the values of \(\text{rhs}\) corresponding to the \(e_i\) which match the pattern.

Examples:

\(\text{Cases}[\{5, k[3], 2, k[1], k[2]\}, \text{pattern}] \rightarrow \{k[3], k[1], k[2]\}\)

\(\text{Cases}[\{5, k[3], k[5]\}, k[x_\ldots], 4 x + 1] \rightarrow \{13, 21\}\)

The first argument to Cases need not have head List. See page 235. See also: Select, Position.