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\mathpalette $\langle argument_1 \rangle \langle argument_2 \rangle$

This command provides a convenient way of producing a math construct that works in all four styles. To use it, you'll normally need to define an additional macro, which we'll call \build. The call on \mathpalette should then have the form \mathpalette\build\argument\argument\argument.

\build tests what style TEX is in and typesets $\langle argument \rangle$ accordingly. It should be defined to have two parameters. When you call \math-palette, it will in turn call \build, with #1 being a command that selects the current style and #2 being $\langle argument \rangle$. Thus, within the definition of \build you can typeset something in the current style by preceding it with '#1'. See page 360 of The TeXbook for examples of using \mathpalette and page 151 of The TeXbook for a further explanation of how it works.