realhats v7.1

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April 5, 2023

`realhats` is a package for LaTeX that makes the `\hat` command put real hats on symbols. For example, the input `\hat{a}=\hat{b}` will produce the output:

$$\hat{a} = \hat{b}$$

To make a vector with a hat, the input `\hat{\mathbf{a}}` produces:

$$\hat{\mathbf{a}}$$

The command `\hat` will choose a hat randomly from eighteen hats:

$\hat{a}$	beret	$\hat{a}$	Santa hat
$\hat{a}$	sombrero	$\hat{a}$	witch's hat
$\hat{a}$	top hat	$\hat{a}$	Ash's hat
$\hat{a}$	fez	$\hat{a}$	cowboy hat
$\hat{a}$	crown	$\hat{a}$	dunce's cap
$\hat{a}$	policeman's hat	$\hat{a}$	Scottish hat
$\hat{a}$	birthday hat	$\hat{a}$	mortarboard
$\hat{a}$	aperiodic tile (white)	$\hat{a}$	aperiodic tile (gray)
$\hat{a}$	aperiodic tile (light blue)	$\hat{a}$	aperiodic tile (blue)

Variables can be given a non-random hat, using the command `\hat` with an optional parameter:

command	produces	command	produces
`\hat[beret]{a}`	$\hat{a}$	`\hat[santa]{a}`	$\hat{a}$
`\hat[sombrero]{a}`	$\hat{a}$	`\hat[witch]{a}`	$\hat{a}$
`\hat[tophat]{a}`	$\hat{a}$	`\hat[ash]{a}`	$\hat{a}$
`\hat[fez]{a}`	$\hat{a}$	`\hat[cowboy]{a}`	$\hat{a}$
`\hat[crown]{a}`	$\hat{a}$	`\hat[dunce]{a}`	$\hat{a}$
`\hat[policeman]{a}`	$\hat{a}$	`\hat[scottish]{a}`	$\hat{a}$
`\hat[birthday]{a}`	$\hat{a}$	`\hat[mortarboard]{a}`	$\hat{a}$
`\hat[tile-white]{a}`	$\hat{a}$	`\hat[tile-gray]{a}`	$\hat{a}$
`\hat[tile-light-blue]{a}`	$\hat{a}$	`\hat[tile-blue]{a}`	$\hat{a}$

You can also pass these same options when loading the package. For example, `\usepackage[cowboy]{realhats}` will cause the package to use cowboy hats everywhere (unless a different hat is given to the `\hat` command).