The **braket** package

Macros for Dirac bra–ket $\langle|\rangle$ notation and sets $\{|\}$

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Commands defined are:

`\bra{ }` `\ket{ }` `\braket{ }` `\set{ }` (small versions)
`\Bra{ }` `\Ket{ }` `\Braket{ }` `\Set{ }` (expanding versions)

The "small versions" use fixed-size brackets independent of their contents, whereas the "expanding versions" make the brackets and vertical lines expand to envelop their contents (internally using the `\left` and `\right` commands). You should use the vertical bar character "`|`" to input any extra vertical lines. In `\Braket` these vertical lines will expand to match the arguments, and in `\Set` the first vertical will expand. E. g.,

```
\Braket{ \phi | \frac{\partial^2}{\partial t^2} | \psi }
```
$$\left\langle \phi \middle| \frac{\partial^2}{\partial t^2} \middle| \psi \right\rangle$$

```
\Set{ x\in\mathbf{R}^2 | 0<{|x|}<5 }
```
$$\left\{ x \in \mathbf{R}^2 \middle| 0 < |x| < 5 \right\}$$

Likewise, you may make an expandable double-bar using either the "`\|`" command or its local alias "`||`".

NOT defined is "`\ketbra`" (for projection operators) because I prefer `\ket{ } \bra{ }`.

Because each definition is so small, it makes no sense to have a complicated generic version for many bracket styles. Instead, you can just copy the definitions and change `\langle` or `\rangle`, to what you like.