This document has a little bit of text, and a little bit of equations.
First, we can put really simple mathematical expressions like $\pi$ or $\sin (x)$ into the text by surrounding them with dollar signs. We can put simple equations into the text in the same way, like this: $y=2 x$.

But if we want to display a complicated mathematical expression, we really ought to place it on a line all by itself. Surround the equation with pairs of dollar signs, like this:

$$
y=A \sin (\omega t)+B \cos (\omega t)
$$

