$$x^n + y^n = z^n$$

The formula of
$$(a+b)^2$$
$$a^2 + b^2 + 2ab = (a+b)^2 \tag{1}$$
$$(x+y)^2$$
$$x^2 + y^2 + 2xy = (x+y)^2 \tag{2}$$

This is a simple math expression $\sqrt{x^2 + 1}$ inside text. And this is also the same: $\sqrt{x^2 + 1}$ but by using another command. This is a simple math expression without numbering
$$\sqrt{x^2 + 1}$$

separated from text. This is also the same:
$$\sqrt{x^2 + 1}$$