Binômio de números complexos

$$(a+b*i)^p = \sum_{n=0}^{\lceil \frac{p-1}{2} \rceil} \binom{p}{2n} (-1)^{n+1} a^{p-2n} b^{2n} + i \sum_{n=0}^{\lfloor \frac{p-1}{2} \rfloor} \binom{p}{2n+1} (-1)^{n+1} a^{p-2n+1} b^{2n+1}$$

```
(a+b*i)^p ~ = ~
sum from{n = 0} to{lceil {p-1} over 2 rceil } left (
binom{p}{2n}  right) (-1)^{n+1} a^{p-2n} b^2n ~ +
~
i sum from{n = 0} to{lfloor {p-1} over 2 rfloor } left (
binom{p}{2n+1}  right) (-1)^{n+1} a^{p-2n+1}
b^{2n +1}
```