Exercise 7

If $f(x) = x^2 + 3x + 5$, evaluate $f(2+i)$.

Solution

Plug in $2 + i$ wherever x is.

$$\begin{aligned}
f(2+i) &= (2+i)^2 + 3(2+i) + 5 \\
&= (4 + 4i + i^2) + 6 + 3i + 5 \\
&= (4 + 4i - 1) + 11 + 3i \\
&= 3 + 4i + 11 + 3i \\
&= 14 + 7i
\end{aligned}$$