Correct.

$$\begin{array}{r}
x + 2 \\
x^2 + 4x + 1 \enclose{longdiv}{x^3 + 6x^2 + 9x + 2} \\
-(x^3 + 4x^2 + x) \\
\hline
2x^2 + 8x + 2 \\
-(2x^2 + 8x + 2) \\
\hline
0
\end{array}$$