Which of the following is the quotient of  $n^3-n^2-n-2$  divided by n+2

$$\begin{array}{|c|c|c|c|c|c|} \hline n+2 & (1) n^3 & +(-1) n^2 & +(-1) n & +(-2) \\ \hline & (\boxed{n^3}) & +(\boxed{2} n^2) \\ \hline \end{array}$$

$$+(-3) n^2 + (-1) n + (-2)$$