5.

Which of the following is the Quotient of $-3n^6 + 9n^5 - 3n^4 - 11n^3 + 9n^2 + n - 1$ divided by $(-n-1)(1-n)^2$

$$
\begin{array}{l|llllll}
 & & & & +(3n^3) & +(-6n^2) & & +(2) \\
\hline
(-n-1)(1-n)^2 & (-3)n^6 & +(9)n^5 & +(-3)n^4 & +(-11)n^3 & +(9)n^2 & +(1)n & +(-1) \\
 & (-3n^6) & +(3n^5) & +(3n^4) & +(-3n^3) & & & \\
 & & +(6)n^5 & +(-6)n^4 & +(-8)n^3 & +(9)n^2 & +(1)n & +(-1) \\
 & & +(6n^5) & +(-6n^4) & +(-6n^3) & +(6n^2) & & \\
 & & & & +(-2)n^3 & +(3)n^2 & +(1)n & +(-1) \\
 & & & & +(-2n^3) & +(2n^2) & +(2n) & +(-2) \\
 & & & & & +(n^2) & +(-n) & +(1)
\end{array}
$$

Coefficient list:

{3, -6, 0, 2}