

5.

Which of the following is the Quotient of $-3u^6 - 9u^5 + 9u^4 + 43u^3 + 15u^2 - 33u - 18$ divided by $(-u - 1)^2(2 - u)$

$$\begin{array}{r}
 + (3u^3) + (9u^2) + (-10) \\
 \hline
 (-u-1)^2(2-u) \quad (-3)u^6 + (-9)u^5 + (9)u^4 + (43)u^3 + (15)u^2 + (-33)u + (-18) \\
 + (-3u^6) + (9u^4) + (6u^3) \\
 + (-9)u^5 + (37)u^3 + (15)u^2 + (-33)u + (-18) \\
 + (-9u^5) + (27u^3) + (18u^2) \\
 + (10)u^3 + (-3)u^2 + (-33)u + (-18) \\
 + (10u^3) + (-30u) + (-20) \\
 + (-3u^2) + (-3u) + (2)
 \end{array}$$

Coefficient list:

$\{3, 9, 0, -10\}$