

2.

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

$$\begin{array}{r}
 \phantom{(-t-2)^2(1-t)} + (3t^3) \phantom{+ (-9t)} + (-4) \\
 \hline
 (-t-2)^2(1-t) \quad (-3)t^6 + (-9)t^5 + (9)t^4 + (43)t^3 + (15)t^2 + (-33)t + (-18) \\
 \phantom{(-t-2)^2(1-t)} + (-3t^6) + (-9t^5) \phantom{+ (9)t^4} + (12t^3) \\
 \phantom{(-t-2)^2(1-t)} \phantom{+ (-3t^6)} + (9)t^4 + (31)t^3 + (15)t^2 + (-33)t + (-18) \\
 \phantom{(-t-2)^2(1-t)} \phantom{+ (-3t^6)} + (9t^4) + (27t^3) \phantom{+ (15)t^2} + (-36t) \\
 \phantom{(-t-2)^2(1-t)} \phantom{+ (-3t^6)} \phantom{+ (9t^4)} + (4)t^3 + (15)t^2 + (3)t + (-18) \\
 \phantom{(-t-2)^2(1-t)} \phantom{+ (-3t^6)} \phantom{+ (9t^4)} + (4t^3) + (12t^2) \phantom{+ (3)t} + (-16) \\
 \phantom{(-t-2)^2(1-t)} \phantom{+ (-3t^6)} \phantom{+ (9t^4)} \phantom{+ (4t^3)} + (3t^2) + (3t) + (-2)
 \end{array}$$

Coefficient list:

$\{3, 0, -9, -4\}$