

1.

Which of the following is the Quotient of  $-3p^6 - 12p^5 - 9p^4 + 10p^3 + 8p^2 + 4$  divided by  $(-p - 2)^2(1 - p)$

$$\begin{array}{r}
 \phantom{(-p-2)^2(1-p)} + (3p^3) + (3p^2) + (2) \\
 \hline
 (-p-2)^2(1-p) \quad (-3)p^6 + (-12)p^5 + (-9)p^4 + (10)p^3 + (8)p^2 + (4) \\
 \phantom{(-p-2)^2(1-p)} + (-3p^6) + (-9p^5) + (12p^3) \\
 \phantom{(-p-2)^2(1-p)} + (-3)p^5 + (-9)p^4 + (-2)p^3 + (8)p^2 + (4) \\
 \phantom{(-p-2)^2(1-p)} + (-3p^5) + (-9p^4) + (12p^2) \\
 \phantom{(-p-2)^2(1-p)} + (-2)p^3 + (-4)p^2 + (4) \\
 \phantom{(-p-2)^2(1-p)} + (-2p^3) + (-6p^2) + (8) \\
 \phantom{(-p-2)^2(1-p)} + (2p^2) + (-4)
 \end{array}$$

Coefficient list:

$\{3, 3, 0, 2\}$