

3.

Which of the following is the Quotient of $-3k^6 + 21k^4 - 8k^3 - 36k^2 + 27k + 8$ divided by $-(1-k)^2 k$

$$\begin{array}{r}
 + (3k^3) + (6k^2) + (-12k) + (-22) \\
 \hline
 -(1-k)^2 k \quad (-3)k^6 + (21)k^4 + (-36)k^2 + (8) \\
 + (-3k^6) + (6k^5) + (-3k^4) \\
 + (-6)k^5 + (24)k^4 + (-8)k^3 + (-36)k^2 + (27)k + (8) \\
 + (-6k^5) + (12k^4) + (-6k^3) \\
 + (12)k^4 + (-2)k^3 + (-36)k^2 + (27)k + (8) \\
 + (12k^4) + (-24k^3) + (12k^2) \\
 + (22)k^3 + (-48)k^2 + (27)k + (8) \\
 + (22k^3) + (-44k^2) + (22k) \\
 + (-4k^2) + (5k) + (8)
 \end{array}$$

Coefficient list:

{3, 6, -12, -22}