

4.

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

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

Coefficient list:

$\{3, 6, -12, -22\}$