

3.

Which of the following is the Quotient of $-3w^6 + 15w^5 - 21w^4 - 5w^3 + 29w^2 - 13w - 4$ divided by $(-w - 1)(2 - w)^2$

$$\begin{array}{r}
 + (3w^3) + (-6w^2) + (3w) + (2) \\
 \hline
 (-w-1)(2-w)^2 \quad (-3)w^6 + (15)w^5 + (-21)w^4 + (-5)w^3 + (29)w^2 + (-13)w + (-4) \\
 (-3w^6) + (9w^5) + (-12w^3) \\
 + (6)w^5 + (-21)w^4 + (7)w^3 + (29)w^2 + (-13)w + (-4) \\
 + (6w^5) + (-18w^4) + (24w^2) \\
 + (-3)w^4 + (7)w^3 + (5)w^2 + (-13)w + (-4) \\
 + (-3w^4) + (9w^3) + (-12w) \\
 + (-2)w^3 + (5)w^2 + (-1)w + (-4) \\
 + (-2w^3) + (6w^2) + (-8) \\
 + (-w^2) + (-w) + (4)
 \end{array}$$

Coefficient list:

$\{3, -6, 3, 2\}$