

2.

Which of the following is the Quotient of $-3q^6 - 3q^5 + 18q^4 + 10q^3 - 25q^2 + 4q + 8$ divided by $(1 - q)q^2$

$$\begin{array}{r}
 + (3 q^3) + (6 q^2) + (-12 q) + (-22) \\
 \hline
 (1 - q) q^2 \quad (-3) q^6 \quad + (-3) q^5 \quad + (18) q^4 \quad + (10) q^3 \quad + (-25) q^2 \quad + (4) q \quad + (8) \\
 + (-3 q^6) + (3 q^5) \\
 + (-6) q^5 + (18) q^4 + (10) q^3 + (-25) q^2 + (4) q + (8) \\
 + (-6 q^5) + (6 q^4) \\
 + (12) q^4 + (10) q^3 + (-25) q^2 + (4) q + (8) \\
 + (12 q^4) + (-12 q^3) \\
 + (22) q^3 + (-25) q^2 + (4) q + (8) \\
 + (22 q^3) + (-22 q^2) \\
 + (-3 q^2) + (4 q) + (8)
 \end{array}$$

Coefficient list:

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