$+(|-12 p^2|)$  $\left( \begin{array}{c|c} (-p-1)^2 & (1-p) \end{array} \right) \, \left( \begin{array}{cc} (-3) \, p^6 & + (9) \, p^5 \end{array} \right. \\ \left. + (3) \, p^4 & + (-23) \, p^3 & + (3) \, p^2 \end{array} \right. \\ \left. + (9) \, p^5 \right. \\ \left. + (9) \, p^6 \right.$  $+ ((3 p^3))$  $+ ((3 p^4))$  $+((-3 p^5))$  $+ (12) p^5$  $+(-26) p^3 + (3) p^2 + (9) p + (1)$ 

Which of the following is the Quotient of  $-3p^6+9p^5+3p^4-23p^3+3p^2+9p+1$  divided by  $(-p-1)^2(1-p)$ 

$$+(\underbrace{12 p^{5}}) +(\underbrace{12 p^{4}}) +(\underbrace{-12 p^{3}}) +(\underbrace{-12 p^{2}}) +(-12 p^{2}) +(-12 p^{4}) +(-14 p^{3}) +(15 p^{2}) +(9 p^{4}) +(11 p^{4}) +(\underbrace{-12 p^{3}}) +(\underbrace{$$

$$+ (-12)p + (-14)p + (13)p + (9)p + (1)$$

$$+ (-12p^4) + (-12p^3) + (12p^2) + (12p)$$

$$+ (-12 p^{3}) + (-12 p^{3}) + (12 p^{2}) + (12 p) + (-2) p^{3} + (3) p^{2} + (-3) p + (1)$$

$$+(-2)p^3 + (3)p^2 + (-3)p + (1)$$
  
 $+(-2p^3) + (-2p^2) + (2p) + (2p)$ 

$$+(-2)p + (3)p + (-3)p + (1)$$

$$+(-2p^3) + ((-2p^2)) + ((2p)) + (2)$$

$$+((-2p^{2})) + ((-2p^{2})) + ((2p)) + ((2p))$$

$$+(\boxed{5 p^2}) + (\boxed{-5 p}) + (\boxed{-1})$$

Coefficient list:  $\{3, -12, 12, 2\}$