Which of the following is the Quotient of $-3p^6+9p^5-3p^4-11p^3+9p^2-5p+2$ divided by $(1-p)^2(2-p)$ $+((-15 p^4)) + ((6 p^3))$

$$+(-2)p^{3} + (3)p^{2} + (-5)p + (2)$$

$$+(2p^{3}) + (8p^{2}) + (10p) + (4)$$

 $+ ((8 p^2))$ $+((-2 p^3))$ +((-10 p)) + ((4))

$$+(-2 p^3) + (8 p^2) + (-10 p) + (4)$$

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

Coefficient list:

 $\{3, 3, 0, 2\}$