Which of the following is the Quotient of $-3q^6 + 21q^4 - 8q^3 - 36q^2 + 15q + 2$ divided by $(1-q)^2(2-q)$

			$+(\boxed{3q^3})$	$+(\boxed{12q^2})$	$+(\boxed{12q})$	$+(\boxed{2})$
$(1-q)^2(2-q)$	$(-3)q^6$		$+(21)q^4$	$+(-8)q^3$	$+(-36)q^2$	$+(15)q$	$+(2)$
	$(\boxed{-3q^6})$	$+(\boxed{12q^5})$	$+(\boxed{-15q^4})$	$+(\boxed{6q^3})$			
		$+(-12)q^5$	$+(36)q^4$	$+(-14)q^3$	$+(-36)q^2$	$+(15)q$	$+(2)$
		$+(\boxed{-12q^5})$	$+(\boxed{48q^4})$	$+(\boxed{-60q^3})$	$+(\boxed{24q^2})$		
			$+(-12)q^4$	$+(46)q^3$	$+(-60)q^2$	$+(15)q$	$+(2)$
			$+(\boxed{-12q^4})$	$+(\boxed{48q^3})$	$+(\boxed{-60q^2})$	$+(\boxed{24q})$	
				$+(-2)q^3$		$+(-9)q$	$+(2)$
				$+(\boxed{-2q^3})$	$+(\boxed{8q^2})$	$+(\boxed{-10q})$	$+(\boxed{4})$
					$+(\boxed{-8q^2})$	$+(\boxed{q})$	$+(\boxed{-2})$

Coefficient list:
{3, 12, 12, 2}