Multiplying Polynomials - Box Method

Multiply the polynomials using box method.

1) $(3n^5 + n^4 + n^3)(5n^5 - 3n^4 + n^3 - n^2) = $ _____

	$5n^5$	$-3n^4$	n^3	$-n^2$
$3n^5$				
n^4				
n^3				

2) $(y^3 - 6y^2 - 7y)(2y^4 + 3y^3 - 8y^2 + y) = $ _____

	$2y^4$	$3y^3$	$-8y^2$	y
y^3				
$-6y^2$				
$-7y$				

3) $(6w^2 + w - 5)(3w^3 - 4w^2 + 8w - 2) = $ _____

	$3w^3$	$-4w^2$	$8w$	-2
$6w^2$				
w				
-5				

Multiply the polynomials using box method.

1) $(3n^5 + n^4 + n^3)(5n^5 - 3n^4 + n^3 - n^2) =$ **$15n^{10} - 4n^9 + 5n^8 - 5n^7 - n^5$**

	$5n^5$	$-3n^4$	n^3	$-n^2$
$3n^5$	$15n^{10}$	$-9n^9$	$3n^8$	$-3n^7$
n^4	$5n^9$	$-3n^8$	n^7	$-n^6$
n^3	$5n^8$	$-3n^7$	n^6	$-n^5$

2) $(y^3 - 6y^2 - 7y)(2y^4 + 3y^3 - 8y^2 + y) =$ **$2y^7 - 9y^6 - 40y^5 + 28y^4 + 50y^3 - 7y^2$**

	$2y^4$	$3y^3$	$-8y^2$	y
y^3	$2y^7$	$3y^6$	$-8y^5$	y^4
$-6y^2$	$-12y^6$	$-18y^5$	$48y^4$	$-6y^3$
$-7y$	$-14y^5$	$-21y^4$	$56y^3$	$-7y^2$

3) $(6w^2 + w - 5)(3w^3 - 4w^2 + 8w - 2) =$ **$18w^5 - 21w^4 + 29w^3 + 16w^2 - 42w + 10$**

	$3w^3$	$-4w^2$	$8w$	-2
$6w^2$	$18w^5$	$-24w^4$	$48w^3$	$-12w^2$
w	$3w^4$	$-4w^3$	$8w^2$	$-2w$
-5	$-15w^3$	$20w^2$	$-40w$	10