Multiplying Polynomials - Box Method

Multiply the polynomials using box method.

1) $(7g^2 - g)\ (3g^3 + 4g^2 - 5g - 6)$ = _____

	$3g^3$	$4g^2$	$-5g$	-6
$7g^2$				
$-g$				

2) $(w + 2)\ (w^5 + 2w^4 + w^3 + 5w^2)$ = _____

	w^5	$2w^4$	w^3	$5w^2$
w				
2				

3) $(2p^3 + p^2)\ (-6p^3 + p^2 - 3p - 4)$ = _____

	$-6p^3$	p^2	$-3p$	-4
$2p^3$				
p^2				

Answer key

Multiply the polynomials using box method.

1) $(7g^2 - g)(3g^3 + 4g^2 - 5g - 6) =$ ___ $21g^5 + 25g^4 - 39g^3 - 37g^2 + 6g$ ___

	$3g^3$	$4g^2$	$-5g$	-6
$7g^2$	$21g^5$	$28g^4$	$-35g^3$	$-42g^2$
$-g$	$-3g^4$	$-4g^3$	$5g^2$	$6g$

2) $(w + 2)(w^5 + 2w^4 + w^3 + 5w^2) =$ ___ $w^6 + 4w^5 + 5w^4 + 7w^3 + 10w^2$ ___

	w^5	$2w^4$	w^3	$5w^2$
w	w^6	$2w^5$	w^4	$5w^3$
2	$2w^5$	$4w^4$	$2w^3$	$10w^2$

3) $(2p^3 + p^2)(-6p^3 + p^2 - 3p - 4) =$ ___ $-12p^6 - 4p^5 - 5p^4 - 11p^3 - 4p^2$ ___

	$-6p^3$	p^2	$-3p$	-4
$2p^3$	$-12p^6$	$2p^5$	$-6p^4$	$-8p^3$
p^2	$-6p^5$	p^4	$-3p^3$	$-4p^2$