

# Multiply the following polynomials:

1.  $(7p - 2q)(3p - 4q)$

	$7p$	$-2q$
$3p$	$21p^2$ ✓	$-6pq$ ✓
$-4q$	$-28pq$ ✓	$+8q^2$ ✓

Hatta

2.  $(x^3 + 4x - 6)(3x - 1)$

	$x^3$	$4x$	$-6$
$3x$	$3x^4$	$12x^2$	$-18x$
$-1$	$-x^3$	$-4x$	$6$
	$-3x^4 - x^3 + 12x^2 - 22x + 6$		

$$21p^2 - 34pq + 8q^2$$

whoever does this

one is lame

3.  $(x + 1)(2x - 3)(5x + 2)$

$x$	$2x^2$	$-3x$
$+1$	$2x$	$-3$

	$2x^2$	$-x$	$-3$
$5x$	$10x^3$	$-5x^2$	$-5x$
$+2$	$4x^2$	$-2x$	$-6$
	$10x^3 - x^2 - 17x - 6$		

# HW #2:

## Multiplying Polynomials

Find each product.

1)  $(x-5)(x^2+6)(3x^2+7)$

$$(x-5)(3x^4+25x^2+42)$$

x	$3x^5$	$25x^3$	$42x$
-5	$-15x^4$	$-125x^2$	$-210$

$$= 3x^5 - 15x^4 + 25x^3 - 125x^2 + 42x - 210$$

2)  $(5x-1)(x^2+9)(5x^2+3)$

$$(5x-1)(5x^4 + 48x^2 + 27)$$

$5x$	$25x^5$	$240x^3$	$135x$
-1	$-5x^4$	$-48x^2$	$-27$

$$= 25x^5 - 5x^4 + 240x^3 - 48x^2 + 135x - 27$$

$$3) (-8u - 5v)(2u - 5v)$$

$$-16u^2 + 40uv - 10uv + 25v^2$$

$$-16u^2 + 30uv + 25v^2$$

$$4) (4u + 4v)(-5u - 2v)$$

$$-20u^2 - 8uv - 20uv - 8v^2$$

$$-20u^2 - 28uv - 8v^2$$

$$5) (5a^2 - 5a - 2)(7a^2 - 7a - 6)$$

$7a^2$	$35a^4$	$-35a^3$	$-14a^2$
$-7a$	$-35a^3$	$35a^2$	$+14a$
$-6$	$-30a^2$	$30a$	$+12$

$$35a^4 - 70a^3 - 9a^2 + 44a + 12$$

$$6) (2b^2 + 5b + 6)(6b^2 + 4b + 5)$$

$6b^2$	$12b^4$	$30b^3$	$36b^2$
$4b$	$8b^3$	$20b^2$	$24b$
$5$	$10b^2$	$25b$	$+30$

$$12b^4 + 38b^3 + 66b^2 + 49b + 30$$

7)  $(3p + 8)(4p^2 - 3p + 6)$

3p	$12p^3$	$-9p^2$	$+18p$
8	$32p^2$	$-24p$	$+48$

$$12p^3 + 23p^2 - 6p + 48$$

9)  $(5r + 1)(5r + 2)$

$$25r^2 + 15r + 2$$

8)  $(m + 5)(7m^2 + 4m - 7)$

m	$7m^3$	$4m^2$	$-7m$
5	$35m^2$	$20m$	$-35$

$$7m^3 + 39m^2 + 13m - 35$$

10)  $(5n + 4)(6n + 5)$

$$30n^2 + 49n + 20$$

11)  $(n-1)^2$

$$n^2 - 2n + 1$$

12)  $(8+7n)(8-7n)$

$$64 - 49n^2$$

$$(7+3v)(7+3v)$$

13)  $(7+3v)^2$

$$49 + 42v + 9v^2$$

14)  $(8a+6)(8a-6)$

$$64a^2 - 36$$

## Polynomial Matching

# Polynomial Puzzle



**BINGO**

## Unit 2 Quiz #2