

8-1)
WARMUP

$$\text{product} = \text{sum}$$
$$(6x - 1)(3x + 2) = 18x^2 + 9x - 2$$

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

3-67)

c)

	5	x
$2x$	$10x$	-15
-3	$2x^2$	$-3x$

$$\text{product} = \text{sum}$$

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

$$(x+5)(2x-3) = 2x^2 + 7x - 15$$

d)

	-7	$4y$
$6y$	$-42y$	$+7$
-1	$24y^2$	$-4y$

$$\text{product} = \text{sum}$$

$$(4y-7)(6y-1) = 24y^2 +$$

$$24y^2 - 42y - 4y + 7$$

$$24y^2 - 46y + 7$$

3-68)

	$3w$	$+p$	-4
$5w$	$15w^2$	$5pw$	$-20w$
$-2p$	$-6pw$	$-2p^2$	$8p$

sum

$$= -2p^2 + 15w^2 - 1pw + 8p - 20w$$

3-69)

⑥

	x	5	
x	x^2	$5x$	x
12	$12x$	60	12
	x	$+5$	

product = sum

$$(x+12)(x+5) = x^2 + 17x + 60$$

⑦

	$2x$	$-3y$	$+5$	
x	$2x^2$	$-3xy$	$5x$	x
-2	$-4x$	$6y$	-10	-2
	$2x$	$-3y$	$+5$	

product

sum

$$(x-2)(2x-3y+5) =$$

$$2x^2 + x - 3xy + 6y - 10$$

8-3)

①

	$2x$	5	
1	$2x$	5	1
$3x$	$6x^2$	$15x$	$3x$
	$2x$	5	

product = sum

$$(2x+5)(3x+1) =$$

$$6x^2 + 17x + 5$$

②

	y	3	
-2	$-2y$	-6	-2
$5x$	$5xy$	$15x$	$5x$
	y	3	

Product

$$(y+3)(5x-2)$$

sum

$$5xy + 15x - 2y - 6$$

③

	$3x$	4	
-3	$-9x$	-12	-3
$4x$	$12x^2$	$16x$	$4x$
	$3x$	4	

Product

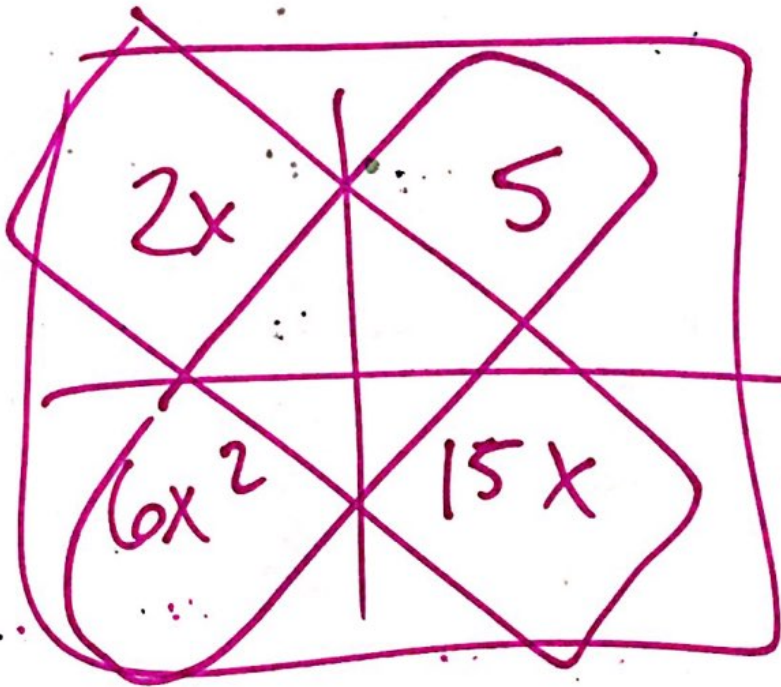
$$(3x+4)(4x-3)$$

sum

$$12x^2 + 7x - 12$$



8-4)



$$(2x)(15x) = (6x^2)(5)$$

$$30x^2 = 30x^2$$

* The product of one diagonal is equal to the product of the other diagonal.