

**SUTRO:**

$$1) (a + b)^2 = a^2 + 2ab + b^2$$

$$2) (a - b)^2 = a^2 - 2ab + b^2$$

**1+ 2 korsi**

$$3) 2(a^2 + b^2) = (a + b)^2 + (a - b)^2$$

**1-2 korsi**

$$4ab = (a + b)^2 - (a - b)^2$$

$$ab = ((a + b)/2)^2 - ((a - b)/2)^2$$

**3 no er onurup:**

$$(a^2 + b^2) = ((a + b)^2 + (a - b)^2) / 2$$

**4 er onurup:**

$$ab = (a + b)^2 / 4 - (a - b)^2 / 4$$

**MATH:****Udahoro: 11)**

Dhori,

$$2x + 3y = a$$

$$4x - 5y = b$$

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$$\text{Jog kore, } 6x - 2y = a + b$$

$$\text{Biyog kore, } -2x + 8y = a - b$$

$$\begin{aligned} ab &= ((a+b)/2)^2 - ((a-b)/2)^2 \\ &= (3x-y)^2 - (-x+4y)^2 \\ &= 9x^2 - 6xy + y^2 - (16y^2 - 8xy + x^2) \\ &= 9x^2 - 6xy + y^2 - 16y^2 + 8xy - x^2 \\ &= 8x^2 + 2xy - 15y^2 \end{aligned}$$

**Nije koro:**

1.  $(2x-4y)(x+y) = 2x^2 - 2xy - 4y^2$  [sorol koro bolle]

**ans:** dhorì,

$$a = 2x - 4y$$

$$b = x + y$$

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Jog kore,  $a+b = 3x - 3y$

Biog kore,  $a-b = x - 5y$

Amra jani,

$$ab = ((a-b)/2)^2 - ((a+b)/2)^2$$

$$= ((3x - 3y)/2)^2 - ((x - 5y)/2)^2$$

$$= (3/2 * (x-y))^2 - (x-5y)/2^2 \quad \{2 \text{ ti rashir borgo akare prokash}\}$$

$$= 9 * (x^2 - 2xy + y^2) / 4 - (x^2 - 2x * 5y + 25y^2) / 4$$

$$= 1/4 (9x^2 - x^2 - 18xy + 10xy + 9y^2 - 25y^2)$$

$$= 1/4 (8x^2 - 8xy - 16y^2)$$

$$= 2x^2 - 2xy - 4y^2 \quad \{\text{sorol rup e ans}\}$$