

問題番号 09M0109_02 レベル ☆☆☆	うんな進学塾 中3 第1章 多項式の計算 ⑨ 項の並び替え No.2 解答	授業動画QR 
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1. 次の式を工夫して計算しなさい。

$$(1) (b - 5)(-5 - b) \\ = -(b - 5)(b + 5) = -(b^2 - 25) = -b^2 + 25$$

$$(2) 23 \times 17 + 17 \times 7 \\ 17(23 + 7) = 17 \times 30 = 510$$

$$(3) (x - 3y)(x^2 + 9y^2)(x + 3y) \\ = (x - 3y)(x + 3y)(x^2 + 9y^2) \\ = (x^2 - 9y^2)(x^2 + 9y^2) = x^4 - 81y^4$$

$$(4) 41^2 \\ = (40 + 1)^2 = 40^2 + 2 \times 40 \times 1 + 1^2 \\ = 1600 + 80 + 1 = 1681$$

$$(5) 1004 \times 996 \\ = (1000 + 4)(1000 - 4) = 1000^2 - 4^2 \\ = 1000000 - 16 = 999984$$

$$(6) 3.3 \times 2.7 \\ = (3 + 0.3)(3 - 0.3) = 3^2 - 0.3^2 \\ = 9 - 0.09 = 8.91$$

$$(7) (5x + 2)^2 - (5x - 2)^2 \\ = (5x + 2 + 5x - 2)(5x + 2 - (5x - 2)) \\ = 10x \times 4 = 40x$$

$$(8) 52^2 - 48^2 \\ = (52 + 48)(52 - 48) = 100 \times 4 = 400$$

(1) $-b^2 + 25$	(2) 510
(3) $x^4 - 81y^4$	(4) 1681
(5) 999984	(6) 8.91
(7) 40x	(8) 400

2. $x = 17, y = 23$ の時の次の式の値を求めなさい。

$$(1) x^2 + 2xy + y^2 \\ = (x + y)^2 = (17 + 23)^2 = 40^2 = 1600$$

$$(2) x^2 + 6x + 9 + y^2 - 6y + 9 \\ = (x + 3)^2 + (y - 3)^2 = (17 + 3)^2 + (23 - 3)^2 \\ = 20^2 + 20^2 = 400 + 400 = 800$$

(1) 1600	(2) 800
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