

- а)  $(a + 1)^2 - 2(a + 1) + 1$ ;  
 б)  $(m - n)^2 + 2n(m - n) + n^2$ ;  
 в)  $(p - q)^2 - 2(p^2 - q^2) + (p + q)^2$ ;  
 г)  $(x + 2y)^2 + 2(x^2 - 4y^2) + (2y - x)^2$ .

$$x^2 - 2xy + y^2 = (x-y)^2$$

$$x^2 + 2xy + y^2 = (x+y)^2$$

$$x^2 - y^2 = (x+y)(x-y)$$

$$(a+1)^2 - 2(a+1) + 1 = ((a+1)-1)^2 = (a+1-1)^2 = a^2$$

$$(m-n)^2 + 2n(m-n) + n^2 = (m-n)^2 + 2(m-n)n + n^2 = ((m-n)+n)^2 = m^2$$

$$(p-q)^2 + 2(p^2 - q^2) + (p+q)^2 = (p-q)^2 + 2(p+q)(p-q) + (p+q)^2 =$$

$$((p-q)+(p+q))^2 = (p-q+p+q)^2 = (2p)^2 = 4p^2$$

$$(x+2y)^2 + 2(x^2 - 4y^2) + (2y-x)^2 = (x+2y)^2 + 2(x^2 - 2^2y^2) + (2y-x)^2 =$$

$$= (x+2y)^2 + 2(x^2 - (2y)^2) + (2y-x)^2 = (x+2y)^2 + 2(x-2y)(x+2y) + (2y-x)^2 =$$

$$((x+2y)+(2y-x))^2 = (x+2y+2y-x)^2 = (4y)^2 = 16y^2$$