

Bizonyítsuk be, hogy

$$(x^{2n+1} - 2x^{2n-1}y^2 + 2x^{2n-3}y^4 - \dots \pm 2xy^{2n})^2 + \\ + (y^{2n+1} - 2y^{2n-1}x^2 + 2y^{2n-3}x^4 - \dots \pm 2yx^{2n})^2 = x^{4n+2} + y^{4n+2}.$$