Adding a "g" term to \( F \) changes \( \psi(\mathcal{F}) \) by \((x^2+y^2)g\).

Q. For which symmetric \( g \) \( (g(x,y) = g(y,x)) \), is it true that \( \tilde{\psi}(x^2+y^2)g) = 0 \) ?

Q. For which \( n \), \( x^2+y^2 | (x+y)^n - x^n - y^n \) ?

Ans. Never

\[ 3(xy^2 + x^2y) = 3xy(x+y) \]

It seems that if a "unitary" \( F \) exists, it is unique.