MATH 602(HOMEWORK 3)

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Exercise. (Exercise 1) The ideal generated by the three polynomials contains $-yz^4 + yz^2 + y = (xy^2 - xz + y) - y(xy - z^2) + z(x - yz^4)$. However, its leading term $-yz^4$ is not in the ideal generated by the leading terms of the three polynomials.