Re: Transforming expressions into ellipse normal form

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In article <s2dv31lhdkdlvik7jmuvqtoe4laom1mdmk@4ax.com>,
Roboy B <markieboy03@gmail.com> writes:
>How to transform the expression [3x^2−2xy+3y^2] by trigonometric
>method with coordinate transformation and matrix diagonalization
>method?

this is [x y][3 −1] [x]
[−1 3] [y]
now compute the two eigenvalues of the 2 by 2 matrix with eigenvectors
normalized to euclidean length 1. Say

U'*A*U = diag(lambda1,lambda2)
then
A=U*diag(lambda1,lambda2)*U'
insert this above set [v,w]'=U'*[x,y]' , done . (.' is transposition)
hth
peter