**CHAPTER 3**

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| **Objective :** | How about some fun with plotting?  • Plot the parametric curve x(t)=t, y(t)=e−t/2 sint for 0 < t < π/ 2 using ezplot.  • Plot the cardioid r(θ)=1+cosθ for 0 <θ<2π using ezpolar.  • Plot the contours of x2 + sin(xy)+y2 + z2 = 0 using ezcontour over the domain −π/2 < x < π/2, −π/2 < y < π/2.  • Create a surface plot along with contours of the function H(x,y)= x2 2 +(1−cosy) for −π<x<π , −2 <y<2. |
| **MATLAB**  **Code:** | x = inline('t');  y = inline('exp(-t/2)');  ezplot(x,y,[0,pi/2])    r = inline('1 +cos(t)');  ezpolar(r)    H = inline('(x^2)/2 + (1-cos(y))');  ezsurfc(H,[-pi,pi,-pi,pi]) |
| **Output:** |  |