

```

% Plotting Directional field for  $y'=-ty$  and specific solution  $y=\exp(-t^2/2)$ 
[t,y] = meshgrid(0:.1:2,0:0.1:2); % ty-coordinates of starting points of arrows
U = ones(size(t));
V = -t.*y; %  $V=f(t,y)$ 
quiver(t,y,U,V) % plot slope field
xlabel('t')
ylabel('y')
axis tight
hold on
w=0:0.1:2;
f=exp(-w.^2/2);
plot(w,f,'r')
legend('Directional field',' $y(t)=\exp(-t^2/2)$  solution for initial condition  $y(0)=1$ ')

```

