

```

    % tols < mu_i < K - tolh or K - tolh <= mu_i and xi_i < tolxi
    [musv,qsf,xi] = findsvm2(mu,w,b,v,eta,K,tols,tolh,tolxi);
    fprintf('psf = %d ',psf)
    fprintf('    qsf = %d \n',qsf)
    fprintf('pf - psf = %d ',pf - psf)
    fprintf('    qf - qsf = %d \n',qf - qsf)
else
    eta = 0;
    denom = 0;
    fprintf('** Warning, nu = (pf + qf)/(p+q) ** \n')
end

Km = (p+q)*nu*K;
fprintf('K = %.15f ',K)
fprintf('    (p+q)*nu*Ks = %.15f \n',Km)
fprintf('sum(lambda) + sum(mu)= %.15f \n',sum(lamb) + sum(mu))

eta1 = 0;
if numsvl1 > 0 || numsvm1 > 0
    if numsvl1 > numsvm1
        eta1 = w'*sx1/num1 - b;
    else
        eta1 = b - w'*sx2/num2;
    end
    fprintf('eta1 = %.15f \n',eta1)
else
    fprintf('** Warning: not enough support vectors ** \n')
end
if denom == 0
    if numsvl1 > 0 || numsvm1 > 0
        eta = eta1;
        fail = 0;
    else
        fail = 1;
        fprintf('** Warning, denom = 0 and not enough support vectors ** \n')
    end
else
    fail = 0;
end
end
end

```

The main function doSVMs3b is executed by the following function: