

```
function [x k] = cgradient(A,b,x0,P,precision) r = b'-A*x0'; x=x0; conv = 1; k = 1; n=size(A,2);  
while conv > precision z = inv(P)*r; alpha = (z'*r)/(z'*A*z); r = r - alpha*A*z; x = x + alpha*z'; conv  
= norm(r)/norm(b); k = k+1; end end
```