Implemented the descent algorithm for the Rosenbrock function with below Condition

a) $d^k = -\nabla f(x^k)$ and Armijo steplength t_k,

b) $d^k = -\nabla^2 f(x^k)^{-1} \nabla f(x^k)$ and Armijo steplength t_k,

c) $d^k = -\nabla^2 f(x^k)^{-1} \nabla f(x^k)$ and fixed steplength $t_k = 1$.

Start with $x^0 = (-1.2, 1)^\top$ and use the termination condition

$$\|\nabla f(x^k)\| \leq \epsilon \|\nabla f(x^0)\|, \quad \text{with } \epsilon = 10^{-3}.$$

As output, displayed the number of iterations, the norm of the gradient and the function value of f.