**Find square root of number using Babylonian method.**

**1 Start with an arbitrary positive start value x (the closer to the**

**root, the better).**

**2 Initialize y = 1.**

**3. Do following until desired approximation is achieved.**

**a) Get the next approximation for root using average of x and y**

**b) Set y = n/x**

float squareRoot(float n)

{

float x = n;

float y = 1;

float e = 0.000001;

while(x - y > e)

{

x = (x + y)/2;

y = n/x;

}

return x;

}

n = 4

Initialize x = 4, y = 1

Next Approximation x = (x + y)/2 (= 2.500000),

y = n/x (=1.600000)

Next Approximation x = 2.050000,

y = 1.951220

Next Approximation x = 2.000610,

y = 1.999390

Next Approximation x = 2.000000,

y = 2.000000