

Begin with re-writing the equation.

```
f=@(t) t - pi./((2+(4*pi./0.6).*exp(-pi./2*t)));
```

Setting the valuable 'a' and 'b' being the lower and upper guesses with sc being the stopping criteria i.e. the accuracy of the value.

```
a = 0.1;  
b = 1.0;  
sc= 0.0001;
```

Starting the script by stating a 'for' argument for the number of iterations i.e minimum of 2 iterations and a maximum if 100 iterations. Then you take the both limits and find the midpoint.

```
for i=2:100;  
c=(a+b)/2;
```

If the function where 't' = a times the function where 't' = c is less than 0 to which if true then the 'b' and 'a' = 'c' and the vice versa for a function of b * c. This allows for values to continuously be reviewed to fit the stopping criteria.

```
if f(a)*f(c)<0  
    b=c;  
else  
    a=c;  
end  
  
if f(b)*f(c)<0;  
    a=c;  
else  
    b=c;  
end  
end
```

Algorithm is the root value retrieved from the above script. MATLAB can compute a root by using the 'fzero' to input the root finding algorithm.

```
Algorithm = [c]
```

```
Algorithm =  
    0.175540285805734
```

```
P = [(a+b)/2];  
Proof = fzero(f,P)
```

```
Proof =  
    0.175540285805734
```