

```
a+bi
Degree
Fix 4
FnOff
PlotsOff
ClrHome

Disp "*****"
Disp ""
Disp "      COMPLEX"
Disp "      ROOTS"
Disp ""
Disp ""
Disp "*****"

Pause
ClrHome

Disp "FIND ROOTS FOR"
Disp "(a+bi)^(1/n)"

Prompt A
Prompt B
Prompt N

 $\sqrt{A^2+B^2} \rightarrow R$ 

If A $\neq$ 0
Then
 $\tan^{-1}(B/A) \rightarrow \theta$ 

If (A<0 and B<0)
Then
 $(180+\theta) \rightarrow \theta$ 

:Else
:If (A<0 and B>0)
Then
 $(180-\theta) \rightarrow \theta$ 

Else
If (A>0 and B<0)
Then
 $(360-\theta) \rightarrow \theta$ 

:::End
::End
:End

Else
If B>0
Then
 $90 \rightarrow \theta$ 

Else
 $270 \rightarrow \theta$ 

End
```

End

Disp "ORIGINAL NUMBER"

$A+Bi \rightarrow X$

Disp X

Disp "ROOTS"

For (K,0,N-1,1)

$(R^{1/N}) \rightarrow S$

$:\cos((\theta+360K)/N) \rightarrow C$

$:\sin((\theta+360K)/N) \rightarrow D$

:Disp (S\*C)+(S\*D)

Pause

End

Float

Stop