

## Appendix 3: Program Sample Size $n$ for a Confidence Interval for a Proportion

The following program can be used to calculate the necessary sample size for a confidence interval for a proportion.

```
PROGRAM:NPROP
:ClrHome
:Disp "INTERVAL .95 ETC"
:Input C
:Disp "ENTER SAMPLE P"
:Input P
:1-P|| Q
:Disp "ERROR .02 ETC"
:Input E
:(1-C)/2|| I
:invNorm(I)|| Z
:Z2*P*Q/E2|| A
:int(A+.999999999)|| N
:ClrHome
:Output(1,1,"CI")
:Output(1,5,C)
:Output(2,1,"P")
:Output(2,5,P)
:Output(3,1,"Q")
:Output(3,5,Q)
:Output(4,1,"E")
:Output(4,5 E)
:Output(6,1,"N")
:Output(6,5,N)
:
```

← To get the squared key push the  $x^2$  key left of the comma