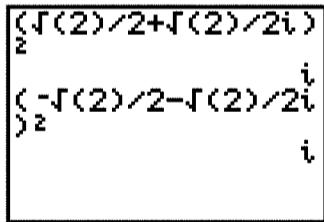


$$55 \quad i = \cos 90^\circ + i \sin 90^\circ$$

$$w_0 = \sqrt[1]{1} \left(\cos \frac{90^\circ + 360^\circ \cdot 0}{2} + i \sin \frac{90^\circ + 360^\circ \cdot 0}{2} \right) = 1(\cos 45^\circ + i \sin 45^\circ) = \frac{\sqrt{2}}{2} + \frac{\sqrt{2}}{2}i$$

$$w_1 = \sqrt[1]{1} \left(\cos \frac{90^\circ + 360^\circ \cdot 1}{2} + i \sin \frac{90^\circ + 360^\circ \cdot 1}{2} \right) = 1(\cos 225^\circ + i \sin 225^\circ) = -\frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2}i$$

This result is verified with the calculator in *Figure 55*.



```
(sqrt(2)/2+sqrt(2)/2i)
/ 2
(-sqrt(2)/2-sqrt(2)/2i)
/ 2
i
```

Figure 55