```
%Ejercicio 4%
%Calcula la raíz octava de z%
m=msgbox('Calcula la raíz octava del complejo
 z=19*e^(i*7pi/6)','Ejercicio 4');

%valores%
m2='Valores a tomar en cuenta';
z=19*(cos((7*pi)/6)+1i*sin((7*pi)/6))
arg=angle(z)
r=abs(z)
n=8

%Cálculo de resultados%
m3='Cálculos';
k=0;
z0=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=1;
z1=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=2;
z2=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=3;
z3=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=4;
z4=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=5;
z5=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=6;
z6=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

k=7;
z7=r^(1/n)*exp((arg+2*k*pi)/(n)*1i)

%Comprobación%
Cz0=z0^8
Cz1=z1^8
Cz2=z2^8
Cz3=z3^8
Cz4=z4^8
Cz5=z5^8
Cz6=z6^8
Cz7=z7^8

%Graficación%
m4='Gráfica';
compass([z0,z1,z2,z3,z4,z5,z6,z7])
```

```
hold on;
plot([z0,z1,z2,z3,z4,z5,z6,z7,z0])
```

```
z =

 -16.4545 - 9.5000i
```

```
arg =

   -2.6180
```

```
r =

    19
```

```
n =

     8
```

```
z0 =

   1.3682 - 0.4645i
```

```
z1 =

   1.2959 + 0.6391i
```

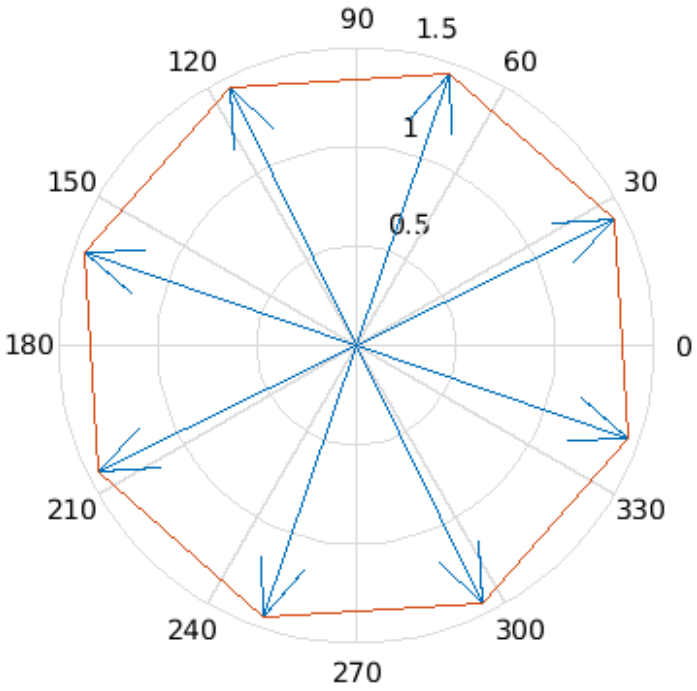
```
z2 =

   0.4645 + 1.3682i
```

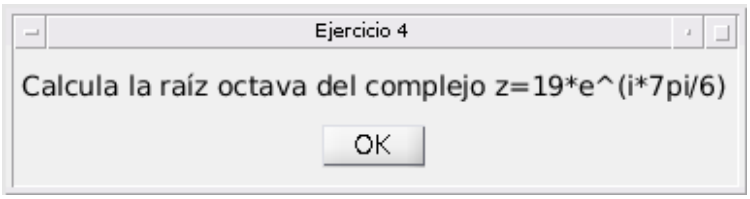
```
z3 =

  -0.6391 + 1.2959i
```

```
z4 =

  -1.3682 + 0.4645i
```

```
z5 =

  -1.2959 - 0.6391i
```

```
z6 =

  -0.4645 - 1.3682i

z7 =

   0.6391 - 1.2959i

Cz0 =

 -16.4545 - 9.5000i

Cz1 =

 -16.4545 - 9.5000i

Cz2 =

 -16.4545 - 9.5000i

Cz3 =

 -16.4545 - 9.5000i

Cz4 =

 -16.4545 - 9.5000i

Cz5 =

 -16.4545 - 9.5000i

Cz6 =

 -16.4545 - 9.5000i

Cz7 =

 -16.4545 - 9.5000i
```





Published with MATLAB® R2021a