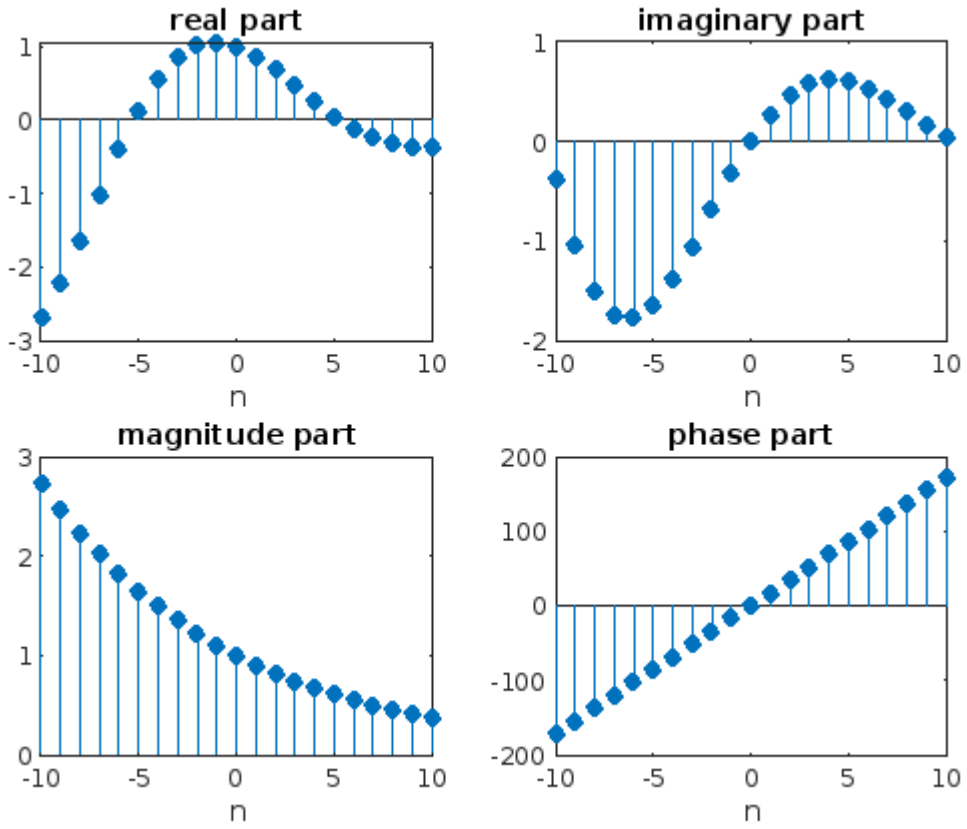
```
% Generate a complex-valued signal for the following equation and plot its
magnitude, the real part, and the imaginary part in four separate subplots:
% x(n) = e(−0.1+j0.3)n, −10 ≤ n ≤ 10
n = [-10:1:10]; alpha = -0.1+0.3j;
x = exp(alpha*n);
subplot(2,2,1); stem(n,real(x), 'filled');title('real part');xlabel('n')
subplot(2,2,2); stem(n,imag(x),'filled');title('imaginary part');xlabel('n')
subplot(2,2,3); stem(n,abs(x),'filled');title('magnitude part');xlabel('n')
subplot(2,2,4); stem(n,(180/pi)*angle(x),'filled');title('phase
part');xlabel('n')
```



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