

P1 Concept: Converting between Fourier Series forms

Find: A_0 , A_1 , ϕ_1 , and $f(t)$ (find and box all 4 things) if the complex Fourier Series coefficients are all 0 except for $c_{-1} = -2+j$, $c_0 = 3$, and $c_1 = -2-j$, and the fundamental frequency is 10Hz.

Hint: The phase term is between -90° and -180° .

P2 Concept: Complex exponential Fourier Series coefficients

Find: The numeric complex exponential coefficients c_{-2} , c_{-1} , c_0 , c_1 , and c_2 .

Hint: The magnitude of c_1 should be roughly 0.3

