

sampling rate: 10 frequency (1.42857 samples per hour)  
signal period: 7 hours, frequency: 0.14286 cycles per hour  
number of samples: 81, 8 periods  
df: 0.01764, Δf: 1.41093 cycles per hour  
dt: 0.70000, Δt: 56.00000 hours  
 $df = 1/\Delta t$ ,  $\Delta f = (n - 1)df = 1/dt$   
offset: 0 m, amplitude: 2 m, initial phase: 0.0 °, noise: 0.0

