

## PROBLEM:

Suppose that a discrete-time signal  $x[n]$  is given by the formula:

$$x[n] = 2.2 \cos(0.3\pi n - \pi/3)$$

and that it was obtained by sampling a continuous-time signal  $x(t)$  at a rate of 6000 samples/sec. Determine three different analog signals that could have produced  $x[n]$ . These analog signals should all have a frequency less than 8 kHz. Write the mathematical formula for all three.