Started on	Wednesday, 3 May 2017, 3:35 PM
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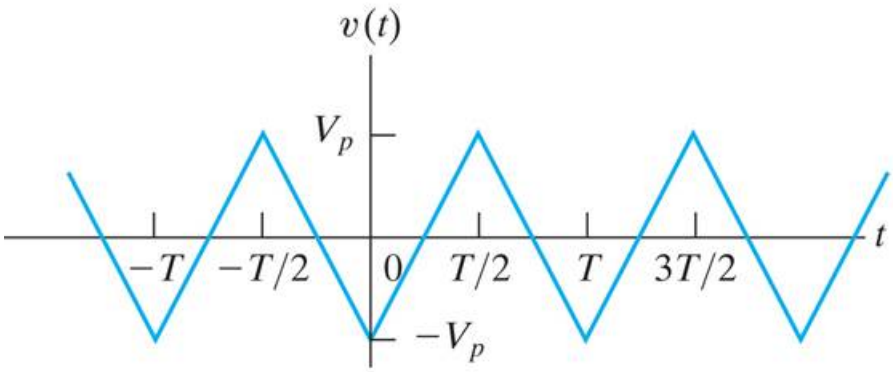
Time taken	42 mins 49 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 100.00 out of 100.00



Quiz 11b

Given: The Fourier coefficients for this waveform are

$a_n = -8V_p/(n\pi)^2$ Volts for n odd $b_n = 0$ $V_p = 50$ V T = 5 ms (milli sec)

Write the following terms of this waveform's Fourier series.

a) What is the average value a_v?

a_v = 0 ✓

Volts

Answer the next two questions in the order of magnitude, identify cosine or sine, and the frequency of the sinusoid in radians/sec.

b) Write the expression for n = 1.

$v_1(t)$ = -40.53 ✓

Cosine ✓ (1256.64 ✓ t) Volts

c) Write the expression for n = 5.

$v_5(t)$ = -1.62 ✓

Cosine ✓ (6283.9 ✓ t) Volts

Numeric Answer

a) $a_v = 0$ V

b) $v_1(t) = -40.5285 \cos(400\ \pi\ t) = -40.5285 \cos(1{,}256.6371\ t)$

c) $v_2(t) = -1.6211 \cos(5*400\ \pi\ t) = -1.6211 \cos(6{,}283.1853\ t)$

Correct

Marks for this submission: 100.00/100.00.