

**Started on** Wednesday, 1 May 2019, 8:57 AM

**State** Finished

**Completed on** Wednesday, 1 May 2019, 9:48 AM

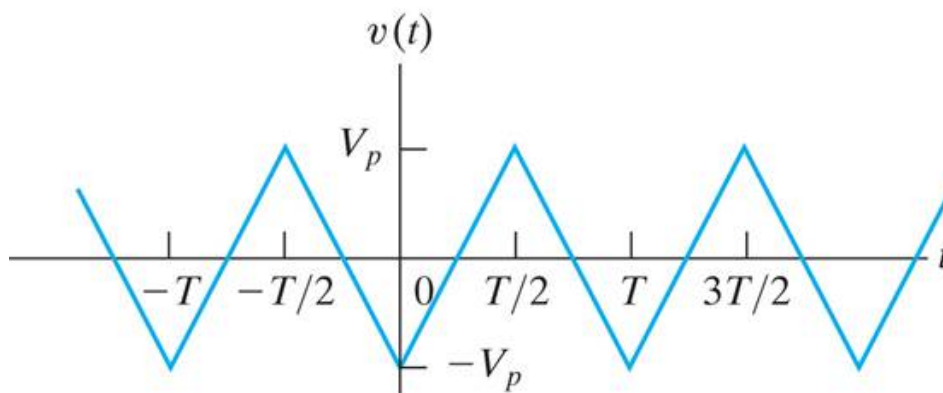
**Time taken** 51 mins 25 secs

**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

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

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

a) What is the average value  $a_v$ ?

$$a_v = 0 \text{ Volts}$$

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  $n = 1$ .

$$v_1(t) = -40.52 \text{ Cosine } (1256 \text{ t) Volts}$$

c) Write the expression for  $n = 5$ .

$$v_5(t) = -1.62 \text{ Cosine } (6283 \text{ t) Volts}$$

**Correct**

Marks for this submission: 100.00/100.00.

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