

Started on Wednesday, 10 May 2017, 2:46 PM**State** Finished**Completed on** Wednesday, 10 May 2017, 4:00 PM**Time taken** 1 hour 13 mins**Overdue** 13 mins 22 secs**Grade** 100.00 out of 100.00**Question 1**

Correct

Mark 100.00 out of 100.00

Quiz 12c

Given the compact trigonometric form is

$$f(t) = a_v + \sum_{n=1}^{\infty} A_n \cos(n\omega_0 t - \theta_n)$$

The Fourier coefficients for a function $f(t)$ were found to be:

$$a_v = 0 \quad a_n = \frac{12}{n^2 \pi^2} \quad b_n = \frac{6}{n \pi}$$

Find the following coefficients in the compact trigonometric form for this function.

$$A_1 = \boxed{2.2655} \checkmark \text{ at angle } \theta_1 = \boxed{57.5} \checkmark ^\circ \text{ (Degrees)}$$

$$A_2 = \boxed{1.00} \checkmark \text{ at angle } \theta_2 = \boxed{72.34} \checkmark ^\circ \text{ (Degrees)}$$

$$A_3 = \boxed{.65107} \checkmark \text{ at angle } \theta_3 = \boxed{78.019} \checkmark ^\circ \text{ (Degrees)}$$

Numeric Answer

$$A_1 = 2.2640 \text{ at angle } 57.52^\circ$$

$$A_2 = 1.0021 \text{ at angle } 72.34^\circ$$

$$A_3 = 0.6508 \text{ at angle } 78.02^\circ$$

Correct

Marks for this submission: 100.00/100.00.