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**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.

$A_1 =$   ✓ at angle  $\theta_1 =$   ✓° (Degrees)

$A_2 =$   ✓ at angle  $\theta_2 =$   ✓° (Degrees)

$A_3 =$   ✓ at angle  $\theta_3 =$   ✓° (Degrees)

### Numeric Answer

$A_1 = 2.2640$  at angle  $57.52^\circ$

$A_2 = 1.0021$  at angle  $72.34^\circ$

$A_3 = 0.6508$  at angle  $78.02^\circ$

**Correct**

Marks for this submission: 100.00/100.00.