Unit 10 - Week 8: Opamp and negative feedback; Example circuits and additional topics

Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2018-09-26, 23:59 IST.

1) Determine the percentage error from the ideal gain in the figure above. Ideal gain refers to $V_o/V_i$ with an ideal opamps. Percentage error is defined as

$$100\left(\frac{V_o}{V_i}_{\text{ideal}} - \frac{V_o}{V_i}\right)$$

(The answer must be the percent error. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Determine the percentage error from the ideal gain in the figure above. Ideal gain refers to $V_o/V_i$ with an ideal opamp. Percentage error is defined as

$$100 \left( \frac{V_o}{V_i} \right)_{ideal} - \frac{V_o}{V_i}$$

(The answer must be the percent error. Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 2.0, 2.1

3)

Determine the negative terminal of the opamp in the figure above so that it is in negative feedback.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) A
In the circuit above, determine the coefficients α and β in the expression for the output \( V_o \).

(The answer must be the coefficient values. Round off fractional answers to two decimal places.)

Value of α

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) -0.5

Value of β

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 1.25

Determine the negative terminals of the two opamps in the figure above so that they are in negative feedback.

Negative terminal of OPA₁
7) **Negative terminal of OPA₂**

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) A

8) 

In the figure above, determine the highest amplitude \( V_p \) such that the opamp is not saturated.

(The answer must be in volts (V). Round off fractional answers to two decimal places.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 3

9)
In the circuit above, \( I_p = I_m = 3 \text{ mA} \) when \( V_i = 0 \). Determine the average current drawn from the supplies when \( V_i = \pi \cos(\omega t) \).

(The answer must be in milliamperes (mA). Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 53

In the circuit above, determine the power delivered by the 3 V source.

(The answer must be in milliwatts (mW). Round off fractional answers to one decimal place.)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) -1.5