

(12.1) A power amplifier when driven by a current source of 5mA rms and a source resistance of 8 k Ω , delivers 12.5 W signal power to an 8 Ω load resistance. Find peak to peak value of the output voltage.

If the input voltage to the amplifier shows 5Vrms, determine the voltage gain of the amplifier.

Show how you arrived at your answer.

$$\underline{V_{p-p}}$$

$$V_{p-p} = \underline{56.56} \text{ OR } \underline{28.28} \text{ OR } \underline{14.68} \text{ OR } \underline{20.28}$$

$$\underline{V_o/V_i}$$

$$V_o/V_i = \underline{3 \text{ v/v}} \text{ OR } \underline{1.2 \text{ v/v}} \text{ OR } \underline{3.2 \text{ v/v}} \text{ OR } \underline{2 \text{ v/v}}$$