

1.12 A power amplifier when driven by a current source of 5 mA rms and a source resistance of  $8\text{ k}\Omega$ , delivers 12.5 W signal power to an  $8\ \Omega$  load resistance. Find peak to peak value of output voltage.

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

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$V_{p-p}$  56.56 OR 28.28 OR 14.68 OR 20.28

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$V_o/V_i$  3 v/v OR 1.2 v/v OR 3.2 v/v OR 2 v/v

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Please show how you arrived at the answer. The more detail the better.

The given multiple choice answers are verified and correct.