

ERPO, DERORATI JOSEPH
IT/ENG02/019
COMPUTER ENGINEERING

MAT 101 - ASSIGNMENT

2) The Arithmetic progression has common difference -5

Number of terms

$$\frac{180 - 25 + 1}{5} = 31 + 1 = 32$$

The average term = $\frac{180 + 25}{2} = \frac{205}{2}$; the same as the average

the first and last terms.

$$\frac{180 + 25}{2}$$

⇒ The Sum of the Series

$$32 \times \frac{205}{2} = 32 \times 102.5 = 3280$$

3) Sum of roots:

$$\frac{1}{2} \text{ and } \frac{3}{2}$$

$$\frac{1}{2} + \frac{3}{2} = \frac{1+3}{2} = \frac{4}{2} = 2$$

Product of roots

$$\frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$$

eqn 1 becomes

$$x^2 - 2x + \frac{3}{4} = 0 \quad \text{--- (1)}$$

Multiply through by 4

$$4(x^2) - 2x(4) + \frac{3}{4}(4) = 0 \times 4$$

$$4x^2 - 8x + 3 = 0$$

$$4x^2 - 8x + 3 = 0$$