

Question Two

$$i) 2+5j + -5-2j = -3+3j$$

$$ii) 2+5j - -5-2j = 7+7j$$

$$iii) \frac{2+5j}{1-3j} \times \frac{1+3j}{1+3j}$$

$$2+6j+5j+15j^2 = 2+11j-15 \quad (j^2 = -1)$$

$$1+3j-3j-9j^2 = 1+9$$

$$\frac{-13+11j}{10} \quad \frac{10}{10}$$

$$1.3 + 1.1j$$

$$iv) (-5-2j)(-5-2j)$$

$$25+10j+10j+4j^2(-4)$$

$$(21+20j)-(2-5j)$$

$$19+25j$$

B

$$5x^2 = -3x - 12$$

$$\underset{A}{5x^2} + \underset{B}{3x} + \underset{C}{12} = 0$$

$$x = \frac{-3 \pm \sqrt{9-240}}{10}$$

$$x = \frac{-3 \pm \sqrt{+231}\sqrt{-1}}{10}$$

$$x = \frac{-3 \pm 15.2j}{10}$$

$$x = \frac{-3}{10} + \frac{15.2j}{10}$$

$$x = -0.3 + 1.52j$$

$$x = -0.3 - 1.52j$$

continued

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