

ONE $z_1 = 7 + 5j$ $z_2 = 3 - 7j$ $z_3 = -2 + 6j$

Q) i) $5 + 11j$

ii) $9 - j$

iii) $\frac{7+5j}{3-7j} \times \frac{3+7j}{3+7j} = \frac{21 + 49j + 15j + 35j^2}{9 + 21j - 21j - 49j^2}$

$\frac{-14 + 64j}{58}$

$\frac{-14 + 64j}{9 + 49}$

$\frac{-14 + 64j}{58}$

$\frac{-14}{58} + \frac{64}{58}j$

iv) $(7 - 5j) - (3 + 7j)$

$4 - 12j$

v) $(z_1)^2 - z_2 - z_3$

$(7+5j)(7+5j) = 49 + 35j + 35j - 25$

$24 + 70j - (3 - 7j) - (-2 + 6j)$

$23 + 71j$