

Q3 (b)

$$z = (4 + 7i)(3 - 2i)$$

Apply complex arithmetic rule

$$a=4, b=7, c=3, d=-2$$

$$(4 \times 3 - 7(-2)) + (4(-2) + 7 \times 3)i$$

$$4 \times 3 - 7(-2) = 26$$

$$4(-2) + 7 \times 3 = 13$$

$$= \underline{\underline{26 + 13i}}$$