QUESTION
If $z = 2 - j$ and $w = -1 + 3j$ find the real and imaginary parts of zw.

ANSWER
$zw = (2-j)(-1+3j) = -2+6j+j-3j^2 = -2+7j-3(-1)$ i.e. $zw = 1+7j$.
Therefore the real part is 1 and the imaginary part is 7.