

# Further Pure 1

## Complex Numbers

### Exercise A

$$5. \quad z_1 = x_1 + y_1j$$

$$z_2 = x_2 + y_2j$$

$$z_1 + z_2 = (x_1 + y_1j) + (x_2 + y_2j)$$

$$= (x_1 + x_2) + (y_1 + y_2)j$$

$$(z_1 + z_2)^* = (x_1 + x_2) - (y_1 + y_2)j$$

$$= (x_1 - y_1j) + (x_2 - y_2j)$$

$$= z_1^* + z_2^*$$