

$$(17) \quad z^2 + (2+2i)z + 3-2i = 0 \quad \Delta = (2+2i)^2 - 4(3-2i) = 4+8i-4-12+8i = 16i$$

$$\Delta = 16e^{i\pi/2} \quad \text{les racines carrées de } \Delta \text{ sont } \delta = \pm 4e^{i\pi/4} = \pm 4\left(\frac{\sqrt{2}}{2} + i\frac{\sqrt{2}}{2}\right)$$

$$\delta = \pm(2\sqrt{2} + i2\sqrt{2})$$

$$z = \frac{-(2+2i) \pm (2\sqrt{2} + i2\sqrt{2})}{2} = -(1+i) \pm (\sqrt{2} + i\sqrt{2})$$

les deux solutions sont :

$-1 + \sqrt{2} + i(-1 + \sqrt{2})$
et
 $-1 - \sqrt{2} + i(-1 - \sqrt{2})$