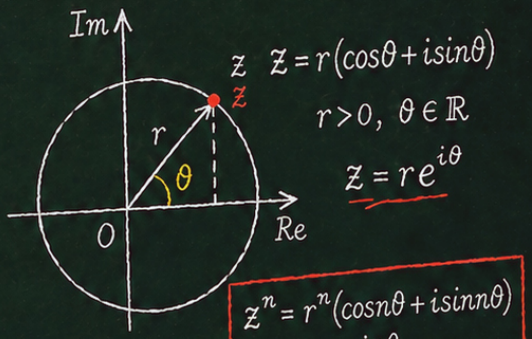
Deuxième partie

Maths Expertes

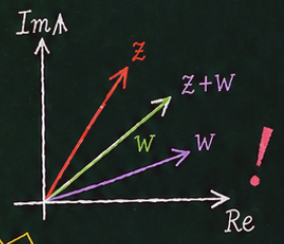


$$z^n = r^n(\cos n\theta + i\sin n\theta) = r^n e^{in\theta}$$

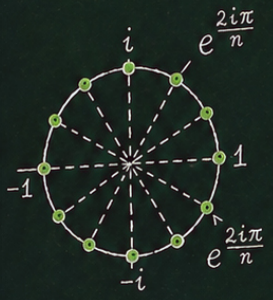
$$\forall a, b \in \mathbb{Z},\ b \neq 0$$

$$\exists!\ q, r \in \mathbb{Z} \text{ tels que } a = bq + r \text{ et } 0 \leq r < |b|$$

$$e^{i\theta} = \cos\theta + i\sin\theta$$



$$(z+w)^n \neq z^n + w^n$$



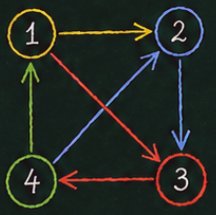
$$U_n = \left\{ e^{\frac{2i\pi k}{n}};\ k = 0, \ldots, n-1 \right\}$$

$$A = \begin{pmatrix} a & b \\ c & d \end{pmatrix}$$

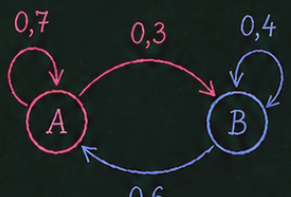
$$A^{-1} = \frac{1}{ad-bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$$

si $ad - bc \neq 0$

$$x_{n+1} = 3x_n - x_{n-1}$$

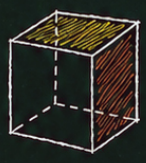


$$A = \begin{pmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{pmatrix}$$



$$P = \begin{pmatrix} 0,7 & 0,3 \\ 0,6 & 0,4 \end{pmatrix}$$

$$\det(AB) = \det(A)\det(B)$$



$$E(X) = \sum_x x\,P(X = x)$$

$$\binom{n}{k} = \frac{n!}{k!(n-k)!}$$

$$\mathrm{Var}(X) = E(X^2) - (E(X))^2$$