

1

| | | | | | |
|-----------|-----------|---------|-----------|---------|----|
| : | " " | " " | . | (u_n) | |
| . | $+\infty$ | | | (u_n) | -1 |
| . | | (u_n) | $+\infty$ | (u_n) | -2 |
| $+\infty$ | | | | (u_n) | -3 |

2

| | | | | |
|-------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------|-------------|----|
| $f(x) = \frac{x^2 - 3x + 6}{x - 1}$ | : | $]1; +\infty[$ | f | |
| | | $f([3; +\infty[) = [3; +\infty[$ | : | -1 |
| $\begin{cases} u_0 = 4 \\ \forall n \in \mathbb{N} \quad u_{n+1} = u_n - 2 + \frac{4}{u_n - 1} \end{cases}$ | : | (u_n) | | -2 |
| (u_n) | - | $\forall n \in \mathbb{N} \quad u_n \geq 3$ | | - |
| | | (u_n) | | - |
| | | $\forall n \in \mathbb{N} \quad v_n = u_n - 3$ | : | -3 |
| $\forall n \in \mathbb{N} \quad v_n \leq \left(\frac{1}{2}\right)^{2^{n-1}}$ | - | $\forall n \in \mathbb{N} \quad v_{n+1} \leq \frac{1}{2} v_n^2$ | | - |
| | | $\lim(u_n)$ | $\lim(v_n)$ | - |

3

| | | | | | |
|-----------------------------|---|------------------------------------|-----------------------------------|---------------|----|
| $B(2i) \quad A(1)$ | . | $(O; \vec{e}_1; \vec{e}_2)$ | ... | \mathcal{P} | |
| $(2+i)z + (2-i)\bar{z} = 4$ | z | M | (Δ) | | -1 |
| $(z+2i)(\bar{z}-2i) = 4$ | z | M | (Γ) | | - |
| | | $z' = \frac{\bar{z} + 4i}{z - 2i}$ | $z \neq -2i$ | | -2 |
| | | | $z' - 1 = \frac{6i}{z - 2i}$ | | - |
| z' | | M' | $BM \times AM' = 6$ | | - |
| | | | $(\overline{BM}; \overline{AM'})$ | | |

4

$$z^2 - (\sqrt{3} - 1)z + 1 - \sqrt{3} + (1 + \sqrt{3})i = 0 \quad \mathbb{C}$$