$$\boxed{c_n = \frac{b_n-3}{b_n+2}} \qquad c_{n+1} = \frac{b_{n+1}-3}{b_{n+1}+2} = \frac{\frac{5b_n+6}{b_n+4} - 3}{\frac{5b_n+6}{b_n+4}+2} = \frac{5b_n+6-3b_n-12}{5b_n+6+2b_n+8} \quad (3)$$

$$\Rightarrow c_{n+1} = \frac{2b_n-6}{7b_n+14} = \frac{2}{7}\times\frac{b_n-3}{b_n+2} = \frac{2}{7}c_n.$$

(c_n) géom de raison $\boxed{q=\frac{2}{7}}$ et de 1er terme $c_0 = \frac{b_0-3}{b_0+2} = \boxed{\frac{7}{12}}$.

$$\Rightarrow \boxed{c_n = \frac{7}{12}\times\left(\frac{2}{7}\right)^n.}$$

$$c_n = \frac{b_n-3}{b_n+2} \iff (b_n+2)c_n = b_n-3 \iff b_n(c_n-1) = -2c_n-3.$$

$$\iff \boxed{b_n = \frac{3+2c_n}{1-c_n}}$$

$\boxed{\lim c_n = 0}$. car $|q|<1$ (Suite géom).

donc $\lim b_n = \frac{3+2\times 0}{1-0} = \boxed{3}$.

- ce résultat est bien conforme à la figure. ($f(3)=3$ pt fixe def.)

II $L_{n+1} = \frac{3}{4}L_n. \qquad A_n = (L_n)^2$

$L_0 = 3.$

$L_n = 3\times\left(\frac{3}{4}\right)^n \qquad A_n = 9\times\left(\frac{9}{16}\right)^n. \quad A = \sum_{n=0}^{\infty} A_n = 9\times\frac{1}{1-\frac{9}{16}} = 9\times\frac{1}{\frac{7}{16}} =$

$$A = \frac{9\times 16}{7} = \boxed{\frac{144}{7}} = \boxed{20,6}.$$