$F_{20} = ?$

F_{10}

1, 1, 2, 3, 5, 8, 13, 21, 34, 55...

$$\frac{21}{13} = 1.615384...$$

złota liczba, liczba phi, φ

$$\boxed{F_n} = \frac{\varphi^n - \psi^n}{\sqrt{5}}$$

$$\varphi = \frac{1+\sqrt{5}}{2} \approx 1.61803\ldots$$

$$\psi = \frac{1-\sqrt{5}}{2} = \boxed{1-\varphi} \approx -0.61803\ldots$$

$$F_n = \frac{\varphi^n - (1-\varphi)^n}{\sqrt{5}}$$