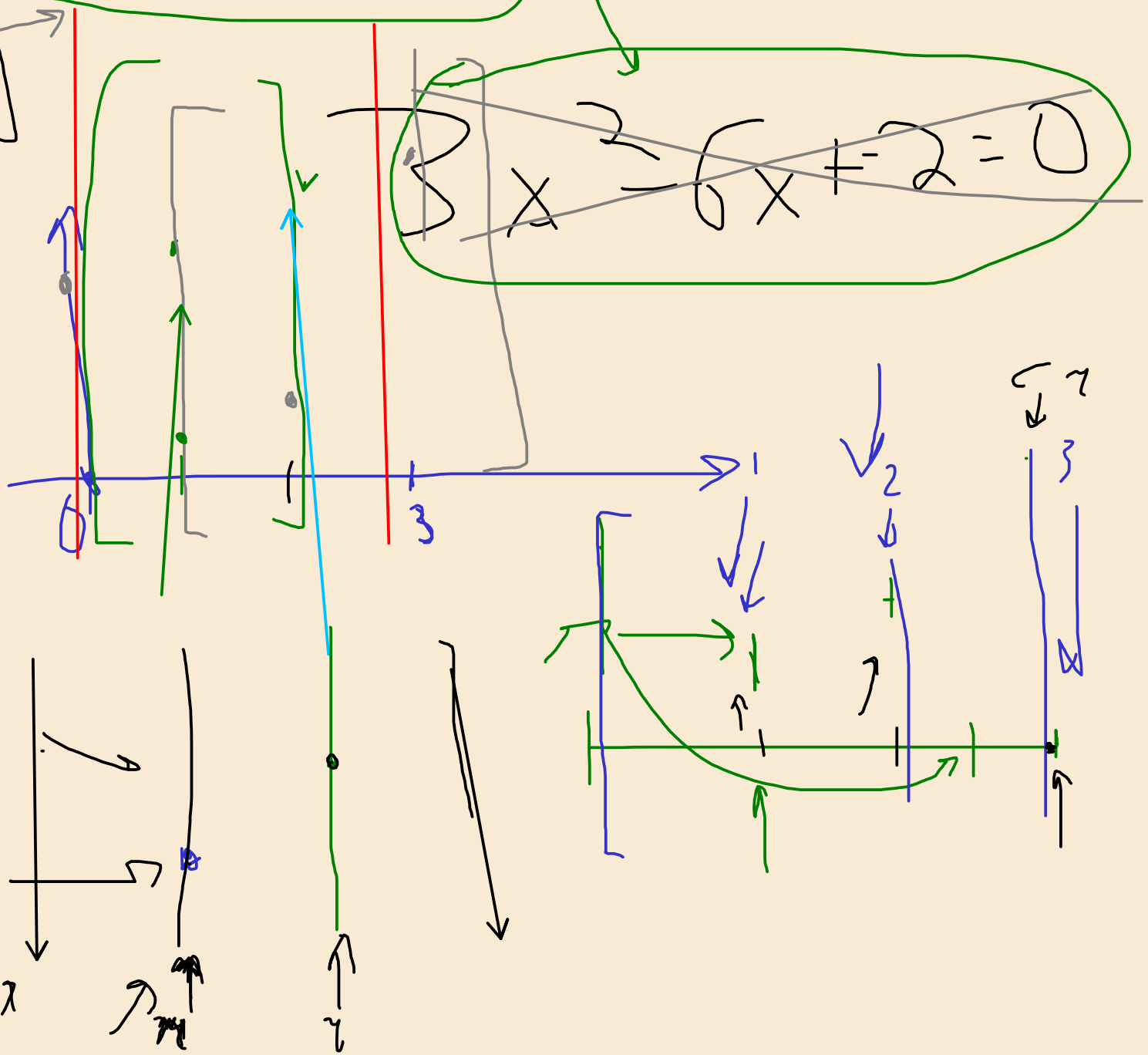
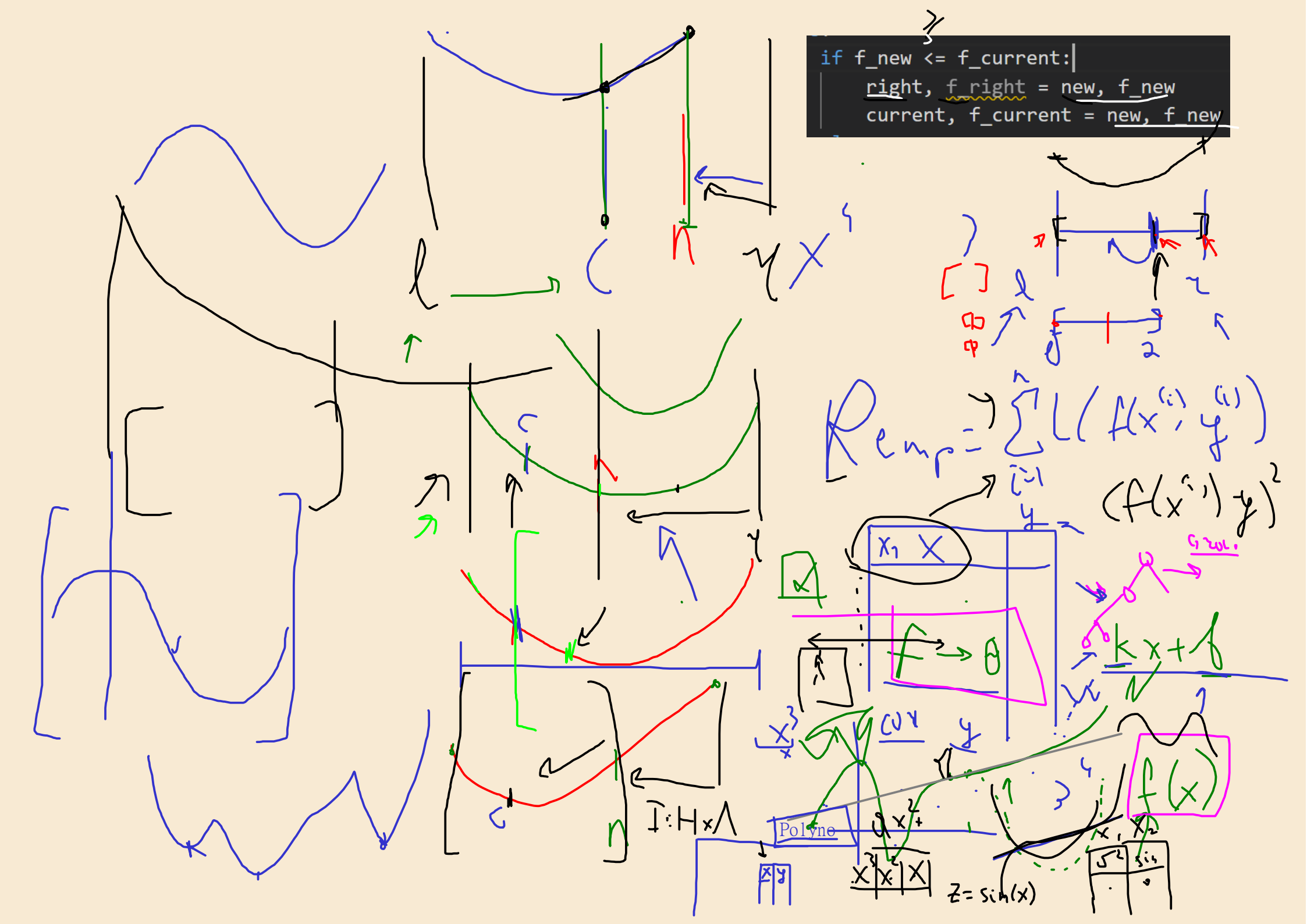
$x^{3} - 3x^{2} + 2x$

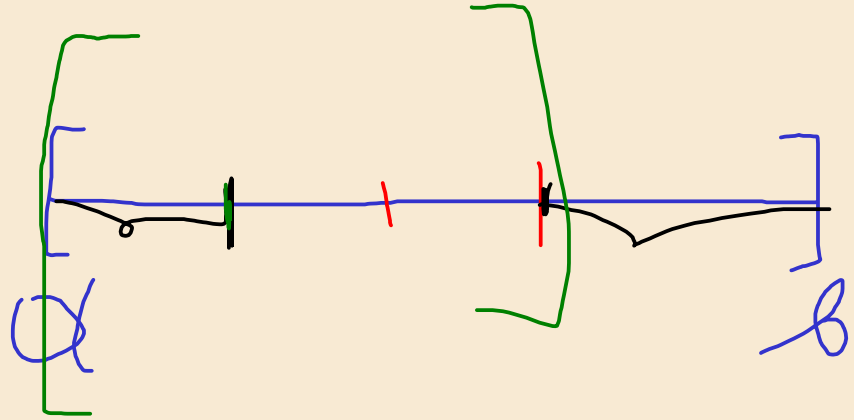
x^{*}

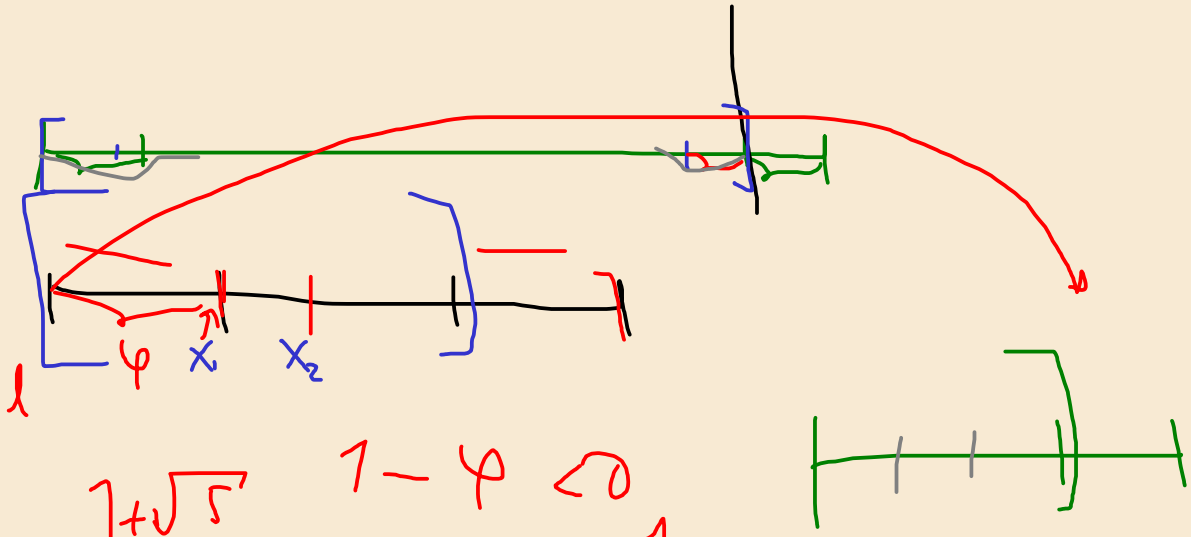
$[0, 3]$

$3x^{2} - 6x + 2 = 0$



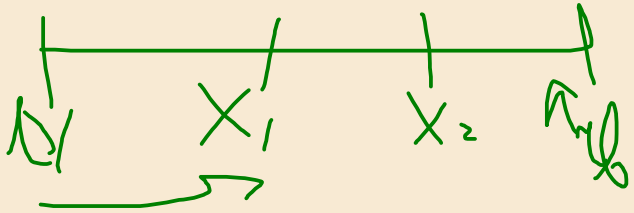

if f_new <= f_current:
right, f_right = new, f_new
current, f_current = new, f_new
Polyno
Z= sin(x)



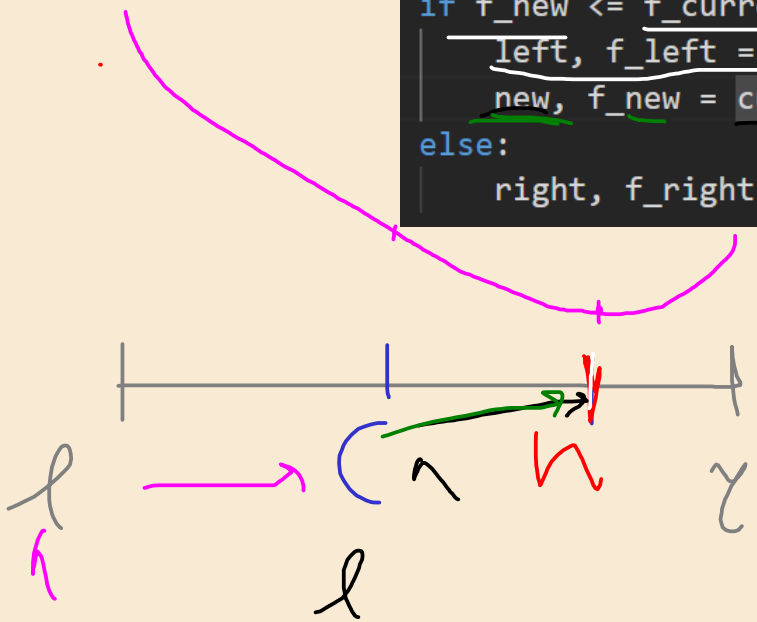


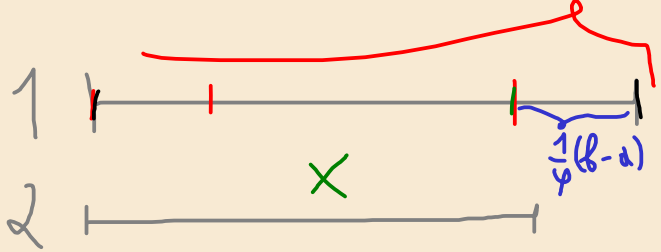
$\frac{1+\sqrt{5}}{2}$ $1-\varphi<0$

$\varphi - 1 = \frac{1}{\varphi}$ $\boxed{\varphi}$



```python
if f_new <= f_current:
    left, f_left = current, f_current
    new, f_new = current, f_current
else:
    right, f_right = new, f_new
```





0.01

$\frac{1}{\varphi} = 1-\varphi$

$\varphi - 1$

0.0 1

$$b-a \cdot \frac{X+}{X+\frac{1}{\varphi}(b-a)} = \frac{(b-a)-\frac{1}{\varphi}(b-a)}{b-a} = 1-\frac{1}{\varphi} = 1-(\varphi-1) =$$

$$= 2-\varphi =$$

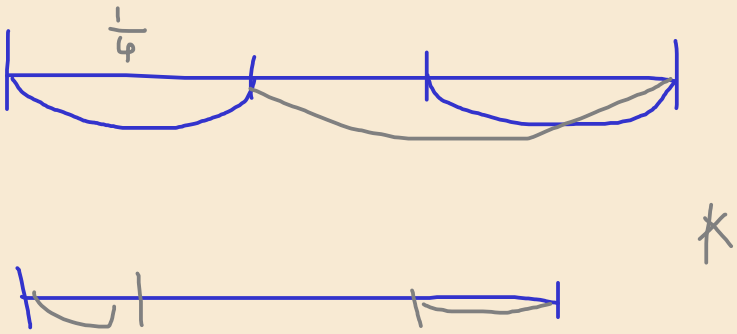
$$k_{n+1} = k_n \cdot \frac{1}{\varphi} \quad \frac{1}{\varphi}$$

$$(b-a)\left(\frac{1}{\varphi}\right)^n < 0.01$$

$$\left(\frac{1}{\varphi}\right)^n < \frac{0.01}{b-a} \qquad \left(\frac{1}{10}\right)^n < \frac{1}{15} \qquad 10^{-1}$$

$$n \ln\frac{1}{\varphi} < \ln\left(\frac{0.01}{b-a}\right) \qquad n \ln\left(\frac{1}{10}\right) < \ln\left(\frac{1}{15}\right)$$

$$n > \frac{\ln\left(\frac{0.01}{b-a}\right)}{\ln\left(\frac{1}{\varphi}\right)} \qquad -n < \ln\ldots$$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