

# Design

e()

$$\frac{1}{(k-1)!} \times \frac{x^k}{k}$$

$$x=1 \quad k=1$$

$$\frac{1^{1-1}}{(1-1)!} \times \frac{1}{1} \Rightarrow \frac{1^0}{0!} \times \frac{1}{1}$$

for (i=0 to 10) {

$$x^k = x^* = x$$

$$k! = k^* = k-1$$

$$e = \frac{x^*}{k^*}$$

$$\sum_{k=0}^{\infty} \frac{(-3)^{-k}}{2k+1} \quad \text{Madhara}$$

$$\text{num} = \frac{1}{-3^k} = \frac{1}{-3} \cdot \frac{1}{-3} \cdot \frac{1}{-3} \dots$$

$$\text{denum} = 2k+1$$

$$\text{total} = \frac{\text{num}}{\text{denum}}$$

euler

$$p(n) = \sqrt{6 \sum_{k=1}^n \frac{1}{k^2}}$$

$$\sum_{k=1}^{\infty} \frac{1}{k^2} = \text{for loop } \{$$
$$k = k$$

$$\text{frac} = 1/k$$

$$\text{tot} += \text{frac} \}$$

$$\text{tot} = 6 \times \text{tot}$$

$$\text{sqrt}(\text{tot})$$

return  $\uparrow$



## VIETE

pi-viete (void)

counter = 1 { 1st term =  $\sqrt{2}$   
num =

double approx = num / 2

counter++ { while... absolute (approx > EPSILON) {  
num =  $\sqrt{2 + \text{num}}$  ;  
approx \*= num / 2 ;  
}  
return (2 x approx) ;

static uint32\_t counter = 0

newton

Given