$$\binom{n}{k} = \frac{n(n-1)\cdots(n-k+1)}{k!}$$

$$(a+b)^2 = a^2 + 2ab + b^2$$

$$(a+b)(a+b)(a+b) = aaa + baa + aba + \ldots$$
$$= a^3 + 3a^2b + 3ab^2 + b^3$$

2 27-10:03

$S = \{a, b, c, d\}$

$|bb|c|$

$a \quad b \quad c \quad d$

$*|***|**|*$

$*|*\times**|**|*$

$\binom{4+3-1}{3} = \binom{6}{3} = \binom{n+k-1}{k}$

2 27-10:17

$$f(n) = n! = n \cdot f(n-1), \quad f(0) = 1$$

$$F(n, x) = (n+1) \cdot x$$

$$f(n+1) = F(n, f(n)) = (n+1) \cdot f(n)$$

$$f(n) = \left(\prod_{i=0}^{n-1} a_i\right) y_0 + \sum_{r=0}^{n-1} \left(\prod_{i=r+1}^{n-1} a_i\right) b_r$$

2 27-10:33

$f(0) = 300.000$

$f(n+1) = 1.005 \cdot f(n) - S$

$a = 1.005$

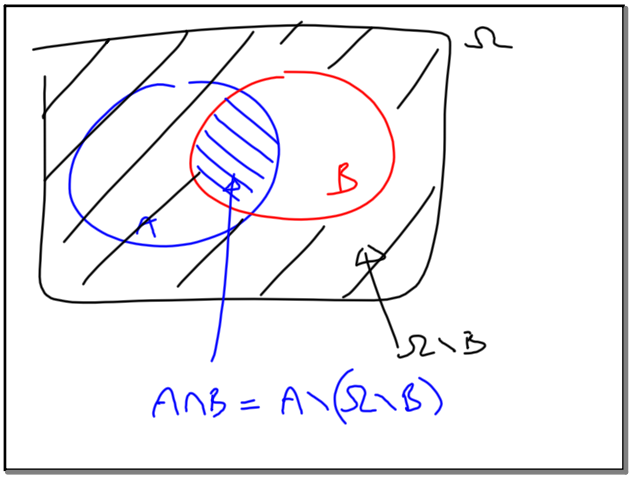
$b = -S$

$y_0 = 300.000$

$$f(n) = (1.005)^n \cdot 300000 + \frac{1-(1.005)^n}{+0.005} \cdot S$$

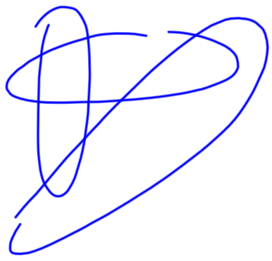
$f(36) = 0$

2 27-10:46

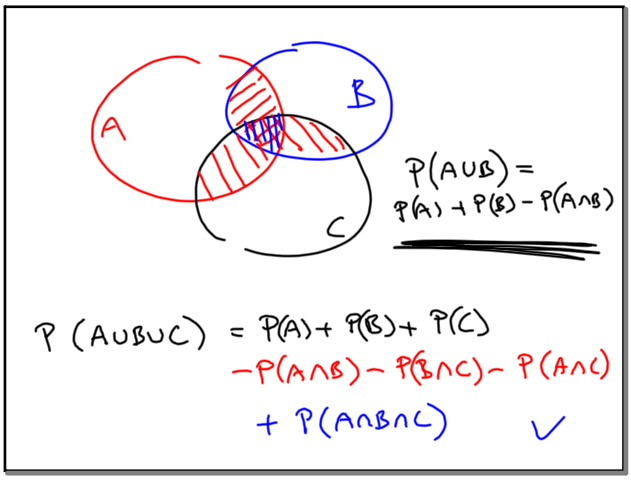


$A \cap B = A \setminus (\Omega \setminus B)$

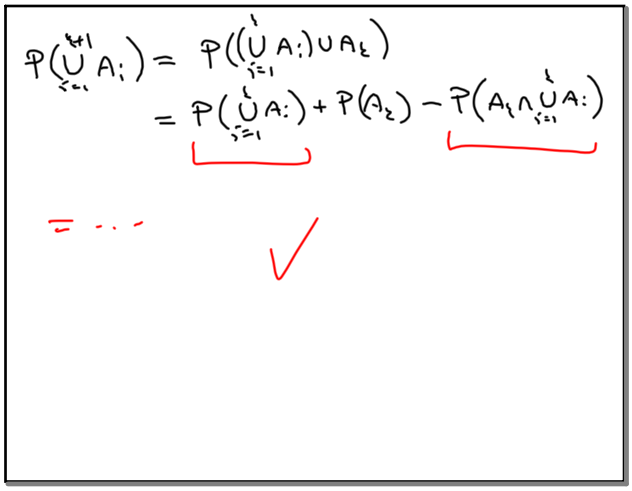
2 27-11:14



2 27-11:22



2 27-11:28



2 27-11:37