

МКР №2

З теорії алгоритмів та математики

студентка ІІС-21

Рубанюк Анастасія

$$\textcircled{1} \text{ a) } \forall x \forall y \quad E_3(x, y) = \overbrace{(D_{2x} \cup D_{xy}) \cap E_{2y}}^L$$

$$1) f(x, y) = \begin{cases} z, & z \in L \\ \perp, & \text{inakne} \end{cases}$$

$$2) z \in L \Rightarrow z \in (D_{2x} \cup D_{xy}) \& z \in E_{2y} \Rightarrow \\ \Rightarrow (z \in D_{2x} \vee z \in D_{xy}) \& z \in E_{2y}$$

$\exists a, \exists k_1, \exists k_2, \exists k_3$

$$(P_{2x}(z) \downarrow_{k_1} k_2 - \text{kpos} \wedge P_{2y}(z) \downarrow_{k_3} k_2 + \text{kpos}) \& P_{2y}(a) = z$$

$\underbrace{\qquad\qquad}_{\text{UPN}}$

3) 3a S-n-m reop.

$$f(x, y, z) = \Psi_{s(x, y)}(z) \cdot \text{Zapiszemo } (x, y)$$

$$z \in L \Leftrightarrow f(x, y, z) \downarrow \Leftrightarrow \Psi_{s(x, y)}(z) \downarrow \Leftrightarrow z \in D_{s(x, y)},$$

$$\text{3a nazywanie } D_{s(x, y)} = E_{s(x, y)}$$

Także $z \in E_{s(x, y)}$. PP iacyt.

$$\textcircled{b) } \forall x \forall y \forall z E_{s(x, y, z)} = \overline{E_y \setminus (D_y \cap D_z)}$$

$$= \overline{E_y \cap (D_y \cap D_z)} = \overline{E_y} \cap (\overline{D_y} \cup \overline{D_z})$$

$$E_y = \emptyset$$

$$D_y = \emptyset \cap D$$

$$D_z = \emptyset \cap N$$

$$\emptyset \cap (\overline{D} \cup N) = D,$$

$$D_{s(x, y, z)} \in \text{PPM} \quad \text{Oznacza, PP iacyt.}$$

2. $\varphi_{zx}(y) + \varphi_y(zx)$ - кратко 3'

~~Задача 2. Кратко~~, ~~Задача 2. Кратко~~ $\varphi_{zx} = \varphi_y$ и $\varphi_z = \varphi_x$

φ y $\exists a \exists k_x \exists k_y \exists z \exists t$
 φ $\exists a \exists k_x \exists k_y \exists z \exists t$ на $kx = kx$ и $ay = ay$

$\varphi_{zx} \downarrow = 2$ & $\varphi_{zy} \downarrow = t$ & $z + t = 3a$.

Будем $P\Gamma \Rightarrow \varphi_{zx}(y) + \varphi_y(zx) \text{ - кратко } 3' - 4P\Gamma$