

Дигенко Вадислав 10-91  
Контрольная работа №1

B-99

$$\begin{array}{llllll} a_1 = -7 & b_2 = 5 & c_2 = 1 & C_1 = 5 & D_1 = 0 & E_1 = -3 \\ a_0 = -4 & b_1 = 1 & c_1 = -2 & C_2 = 7 & D_2 = 2 & E_2 = 4 \\ & b_0 = -8 & c_0 = 6 & & & \end{array}$$

Формулы:  $W, P_3$

$$1. \begin{cases} y = y_1 + d_2 x + b_2 z \\ p y_1 = y_2 + d_1 x + b_1 z \\ p y_2 = -a_1 y_1 - a_0 y_1 + d_0 x + b_0 z \end{cases}$$

$$\begin{aligned} 2, 3. \begin{cases} d_2 = b_2 = 5 \\ d_1 = b_1 - a_1 d_2 = 1 + 7 \cdot 5 = 36 \\ d_0 = b_0 - a_1 d_1 - a_0 d_2 = -8 + 7 \cdot 36 + 4 \cdot 5 = 264 \end{cases} \\ \begin{cases} b_2 = c_2 = 1 \\ b_1 = c_1 - a_1 b_2 = -2 + 7 \cdot 1 = 5 \\ b_0 = c_0 - a_1 b_1 - a_0 b_2 = 6 + 7 \cdot 5 + 4 \cdot 1 = 45 \end{cases} \end{aligned}$$

$$4. \begin{cases} y_1 = y - d_2 x - b_2 z \\ y_2 = p y - d_2 p x - b_2 p z - d_1 x - b_1 z \end{cases}$$

$$\begin{aligned} p^2 y - d_2 p^2 x - b_2 p^2 z - d_1 p x - b_1 p z = \\ = -a_1 p y + d_2 a_1 p x + b_2 a_1 p z + d_1 a_1 x + b_1 a_1 z - a_0 y + d_2 a_0 x + b_2 a_0 z + d_0 x + b_0 z \end{aligned}$$

5.

$$\begin{cases} y_1(0) = y(0) - 5x(0) - z(0) \end{cases}$$

$$\begin{cases} y_2(0) = py(0) - 5px(0) - pz(0) - 36\dot{x}(0) - 5z(0) \end{cases}$$

$$y(0) = C_1 = 5$$

$$py(0) = C_2 = 7$$

$$x(0) = D_1 = 0$$

$$px(0) = D_2 = 2$$

$$z(0) = E_1 = -3$$

$$pz(0) = E_2 = 4$$

$$\begin{cases} y_1(0) = 5 - 5 \cdot 0 + 3 = 8 \end{cases}$$

$$\begin{cases} y_2(0) = 7 - 5 \cdot 2 - 4 - 36 \cdot 0 + 5 \cdot 3 = 8 \end{cases}$$