

(*) Обосновать алгоритм извлечения квадратного корня в столбик.

$$V? = \underline{xy} |^2$$

$$\underline{xy}^2 = ?$$

$$\underline{xy} = 10x + y$$

$$\underline{35} = 3 * 10 + 5$$

$$(10x + y)^2 = ?$$

$$(10x)^2 + 2 * 10x * y + y^2 = ?$$

$$100x^2 + 2 * 10x * y + y^2 = ?$$

$$100x^2 + y(2 * 10x + y) = ?$$

$$V? = \underline{xyz} |^2$$

$$\underline{xyz}^2 = ?$$

$$\underline{xyz} = 100x + 10y + z$$

$$(100x + 10y + z)^2 = ?$$

$$10000x^2 + 100y^2 + z^2 + 2 * 100x * 10y + 2 * 100x * z + 2 * 10y * z = ?$$

$$10000x^2 + 100y^2 + z^2 + 2 * 100x * 10y + 2 * 100x * z + 2 * 10y * z = ?$$

$$10000x^2 + 100y(y + 2 * x * 10) + z^2 + 2 * 100x * z + 2 * 10y * z = ?$$

$$\underline{xyz} = 100x + 10y + z$$

$$x = 3$$

$$2x = 6$$

$$2x * 10 = 60$$

$$(60 + y) * y$$

$$V11'56 = 34$$

$$\underline{9}$$

$$64 \ 256$$

$$\underline{4 \ 256}$$

$$0$$

$$V[3]? = \underline{xy} |^3$$

$$\underline{xy}^3 = ?$$

$$(10x + y)^3 = ?$$

$$(10x)^3 + 3 * (10x)^2 y + 3 * 10x y^2 + y^3 = ?$$

$$1000x^3 + 3 * (10x)^2 y + 3 * 10x y^2 + y^3 = ?$$

$$1000x^3 + y(3 * (10x)^2 + 3 * 10xy + y^2) = ?$$

$$1000x^3 + y(3 * 100x^2 + 3 * 10xy + y^2) = ?$$

$$(7500 + 150y + y^2) * y = (7500 + 1050 + 49) * 7 = 8599$$

$$7$$

$$60193$$

$$V[3]185.193 = 57$$

$$125$$

$$60 \ 193$$

$$\underline{60 \ 193}$$

$$0$$

$$(\underline{xy} * 2 * 10 + z) * z$$

$$((10x + y) * 2 * 10 + z) * z$$

$$2 * 100x * z + y * 2 * 10 * z + z^2$$