

$$10) \ 732_{10} = ?_7$$

$$732_{10} = 100200_7$$

$$1) \ 732 \div 2 = 366 \rightarrow d_1 = 732 \bmod 2 = 0$$

$$2) \ 366 \div 3 = 122 \rightarrow d_2 = 366 \bmod 3 = 0$$

$$3) \ 122 \div 4 = 30 \rightarrow d_3 = 122 \bmod 4 = 2$$

$$4) \ 30 \div 5 = 6 \rightarrow d_4 = 30 \bmod 5 = 0$$

$$5) \ 6 \div 6 = 1 \rightarrow d_5 = 6 \bmod 6 = 0$$

$$6) \ 1 \div 7 = 0 \rightarrow d_6 = 1 \bmod 7 = 1$$

$$X_7 = \overline{d_4 d_3 d_2 d_1}_7$$

$$X_7 = 100200_7$$

$$11) \ 136_{-10} = ?_{10}$$

$$136_{-10} = 1 \cdot (-10)^2 + 3 \cdot (-10)^1 + 6 \cdot (-10)^0 = 100 - 30 + 6 = 76_{10}$$

$$136_{-10} = 76_{10}$$

$$12) 10100010_{\text{Фиг}} = ?_{10}$$

$$\begin{array}{cccccccc} 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 \\ 7 & 6 & 5 & 4 & 3 & 2 & 1 & 0 \end{array} \text{Фиг} = 0 \cdot 1 + 1 \cdot 2 + 0 \cdot 3 + 0 \cdot 5 + 0 \cdot 8 + 1 \cdot 13 + 0 \cdot 21 + 1 \cdot 34 =$$

$$= 2 + 13 + 34 = 49$$

$$10100010_{\text{Фиг}} = 49_{10}$$

$$13) 1000001.0000001_{\text{Берг}} = ?_{10}$$

$$\begin{array}{cccccccccccc} 1 & 0 & 0 & 0 & 0 & 0 & 1 & . & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 6 & 5 & 4 & 3 & 2 & 1 & 0 & & -1 & -2 & -3 & -4 & -5 & -6 & \text{Берг} \end{array} = 1 \cdot \left(\frac{1+\sqrt{5}}{2} \right)^6 + 1 \cdot \left(\frac{1+\sqrt{5}}{2} \right)^0 + 1 \cdot \left(\frac{1+\sqrt{5}}{2} \right)^{-6} =$$

$$= 1_{10}$$

$$1000001.0000001_{\text{Берг}} = 1_{10}$$