

$$x = (0.1010101010101\dots)_2$$

$$x = 2^{-1} + 2^{-3} + 2^{-5} + 2^{-7} + \dots$$

$$= \frac{1}{2} \left[1 + \frac{1}{4} + \frac{1}{16} + \frac{1}{64} + \dots \right]$$

postępowanie geometryczne

$$x = \frac{1}{2} \cdot \frac{1}{1 - \frac{1}{4}} = \frac{1}{2} \cdot \frac{4}{3} = \frac{2}{3}$$

$$x = (0,666\dots)_{10}$$

nieskończony \rightarrow nieskończ.

HEKSADECYMALNE

0, 1, ..., 9, A, B, C, D, E, F

$$(F)_{16} = (15)_{10}$$

$$\begin{aligned} (AC.17)_{16} &= (10 \cdot 16^1 + 12 \cdot 16^0 + 1 \cdot 16^{-1} + 7 \cdot 16^{-2})_{10} \\ &= (172.08984375)_{10} \end{aligned}$$

(2) \rightarrow (16) Dziel na czwórki i zapisuj w (16).

$$(10101100.00010111)_2$$

$$(A)_{16} = (1010)_2, \dots, (7)_{16} = (0111)_2 \quad \blacksquare$$

$$(0011 \ 0101.1100 \ 1000)_2 = (35.C8)_{16} \quad \blacksquare$$

$$\begin{aligned} x &= (0.1010 \ 1010 \ 1010 \ 1010 \dots)_2 \\ &= (.AAAA\dots)_{16} \end{aligned}$$