

Foundations of Information Systems

Winter Semester 2023–24, Exercise 3

For discussion on Wednesday, November 8, 2023

1. Convert the following decimal numbers into binary. Note that the resulting binary representation may not terminate and become periodic.

(a) $(9.5)_{10}$

(b) $(\frac{44}{7})_{10}$

2. Convert from binary to decimal.

(a) $(1101.0111)_2$

(b) $(0.0\overline{1001})_2$

3. Convert from decimal to hexadecimal (a) or back (b).

(a) $(39.75)_{10}$

(b) $(F.42)_{16}$