1

a

$$(1011011.001)_2 \longrightarrow (?)_{10}$$

$$x = \pm\left(d_n \beta^n + d_{n-1} \beta^{n-1} + \dots\right)$$

$$(1011011.001)_2 = \left(\begin{array}{l} 1 \cdot 2^6 + 1 \cdot 2^4 + 1 \cdot 2^3 + \dots \\ \dots + 1 \cdot 2^1 + 1 \cdot 2^0 + 1 \cdot 2^{-3} \end{array}\right)$$

$$= 64 + 16 + 8 + 1 + 0.125$$

$$= \boxed{91.125}$$