

$$\text{b) } \log_a a^7 \Leftrightarrow a^x = a^7 \Leftrightarrow x = 7$$

$$\text{f) } \log_a \frac{1}{\sqrt[3]{a}} = \log_a \frac{1}{a^{\frac{1}{3}}} = \log_a a^{-\frac{1}{3}} \Leftrightarrow a^x = a^{-\frac{1}{3}} \Leftrightarrow x = -\frac{1}{3}$$

