

Ex 4.2.5

a) $x = \log_2(32) \Leftrightarrow x = 5 \Rightarrow S = \{5\}$

b) $2^x = 100 \Leftrightarrow \log_2(100) = x \Rightarrow S = \{\log_2(100)\}$

c) $\log_x(256) = 4 \Leftrightarrow x^4 = 256 \Leftrightarrow x = \sqrt[4]{256} = 4 \Rightarrow S = \{4\}$

d) $\log_2(x) = 4 \Leftrightarrow 2^4 = x \Leftrightarrow x = 16 \Rightarrow S = \{16\}$

A vérif. : $\log_2(16) = 4 \checkmark$

e) $10^x = 5 \Leftrightarrow x = \log(5) \Rightarrow S = \{\log(5)\}$

g) $\log_x(1000) = 3 \Leftrightarrow x^3 = 1000 \Leftrightarrow x = 10 \Rightarrow S = \{10\}$

h) $12^x = 49 \left(\Leftrightarrow x = \log_{12}(-49) \right)$ impossible $\Rightarrow S = \emptyset$

Ex 4.2.6

a) $\log_M(x+1) = \log_M(7) \Leftrightarrow x+1 = 7$
 $\Leftrightarrow x = 6$

vérif. \checkmark

$S = \{6\}$