

B. 168 - Resoluc5:

$$b) \log_{\frac{1}{2}} [\log_3 (\log_4 x)] = 0 \rightarrow \left(\frac{1}{2}\right)^0 = [\log_3 (\log_4 x)]^{st}$$

$$3^1 = \log_4 x \rightarrow 4^3 = x \rightarrow x = 64 \quad S = \{64\}$$

$$c) \log_{\frac{1}{4}} \{ \log_3 [\log_2 (3x-1)] \} = 0$$

$$\rightarrow \left(\frac{1}{4}\right)^0 = \{ \log_3 [\log_2 (3x-1)] \} \rightarrow 3^1 = \log_2 (3x-1) \rightarrow S$$

$$2^3 = 3x-1 \rightarrow 8 = 3x-1 \rightarrow 3x = 9 \rightarrow x = 3 \quad S = \{3\}$$

~~$$d) \log_2 [1 + \log_3 [\log_2 (3x-1)]] = 0 \rightarrow$$~~

$$d) \log_2 [1 + \log_3 (1 + \log_4 x)] = 0 \rightarrow$$

$$2^0 = [1 + \log_3 (1 + \log_4 x)]$$

$$1 = 1 + \log_3 (1 + \log_4 x) \rightarrow \log_3 (1 + \log_4 x) = 0 \rightarrow$$

$$\rightarrow 3^0 = 1 + \log_4 x \rightarrow 1 = 1 + \log_4 x \rightarrow \log_4 x = 0 \rightarrow$$

$$4^0 = x \rightarrow x = 1 \quad S = \{1\}_{//}$$

$$S = x \text{ and } S = x$$