

Β ΛΥΚΕΙΟΥ ΑΛΓΕΒΡΑ

28.3 1)

$$\log_x 27 = 3 \Rightarrow x^3 = 27 \Rightarrow x = \sqrt[3]{27} \Rightarrow x = 3$$

28.3 2)

$$\log_x 4 = 2 \Rightarrow x^2 = 4 \xrightarrow{x>0} x = 2$$

28.3 3)

$$\log_x 9 = 2 \Rightarrow x^2 = 9 \xrightarrow{x>0} x = 3$$

28.3 4)

$$4) \log_x 16 = 4 \Rightarrow x^4 = 16 \Rightarrow x = \sqrt[4]{16} \Rightarrow x = 2$$

28.3 5)

$$5) \log_x 8 = 3 \Rightarrow x^3 = 8 \Rightarrow x = \sqrt[3]{8} \Rightarrow x = 2$$

28.3 6)

$$6) \log_x 125 = 3 \Rightarrow x^3 = 125 \Rightarrow x = \sqrt[3]{125} \Rightarrow x = 5$$

28.3 7)

$$7) \log_x 5 = \frac{1}{4} \Rightarrow x^{\frac{1}{4}} = 5 \Rightarrow x = 5^4 \Rightarrow x = 625$$

28.3 8)

$$8) \log_x 4 = \frac{1}{2} \Rightarrow x^{\frac{1}{2}} = 4 \Rightarrow x = 4^2 \Rightarrow x = 16$$

28.3 9)

$$9) \log_{\sqrt{x}} 4 = 2 \Rightarrow (\sqrt{x})^2 = 4 \Rightarrow x = 4$$

28.3 10)

$$10) \log_{\sqrt{x}} 8 = 3 \Rightarrow (\sqrt{x})^3 = 8 \Rightarrow \sqrt{x} = \sqrt[3]{8} \Rightarrow \sqrt{x} = 2 \Rightarrow x = 4$$

28.3 11)

$$11) \log_{\sqrt{x}} 27 = 3 \Rightarrow (\sqrt{x})^3 = 27 \Rightarrow \sqrt{x} = \sqrt[3]{27} \Rightarrow \sqrt{x} = 3 \Rightarrow x = 9$$

28.3 12)

$$12) \log_{\sqrt[3]{x}} 16 = 4 \Rightarrow (\sqrt[3]{x})^4 = 16 \Rightarrow \sqrt[3]{x} = \sqrt[4]{16} \Rightarrow$$

$$\Rightarrow \sqrt[3]{x} = 2 \Rightarrow x = 2^3 \Rightarrow x = 8$$