

کانال یازدهم ریاضی

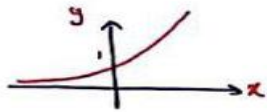
$$a^x = y$$

$$\log_a(y) = x$$

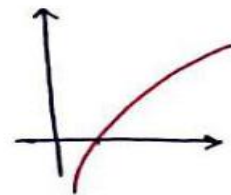
$$y = a^x \quad (a > 1)$$

$$1 < a < a^2 < \dots < a^n$$

$$\sqrt[n]{a} > \sqrt[n-1]{a} > \sqrt[n-2]{a} > \dots > \sqrt[2]{a} > 1$$



$$y = \log_a x \quad (a > 1)$$



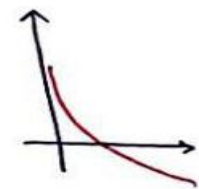
$$y = a^x \quad (0 < a < 1)$$

$$1 > a > a^2 > \dots > a^n$$

$$1 < \sqrt[n]{a} < \sqrt[n-1]{a} < \dots < \sqrt[2]{a}$$



$$y = \log_a x \quad (0 < a < 1)$$



تَرَائِیْ نَاسِیْمَ

$$1) \log ab = \log a + \log b$$

$$2) \log \frac{a}{b} = \log a - \log b$$

$$3) \log a^n = n \log a$$

$$4) \log_b a^m = \frac{1}{m} \log_b a$$

$$5) \log_b a = \frac{1}{\log_a b}$$

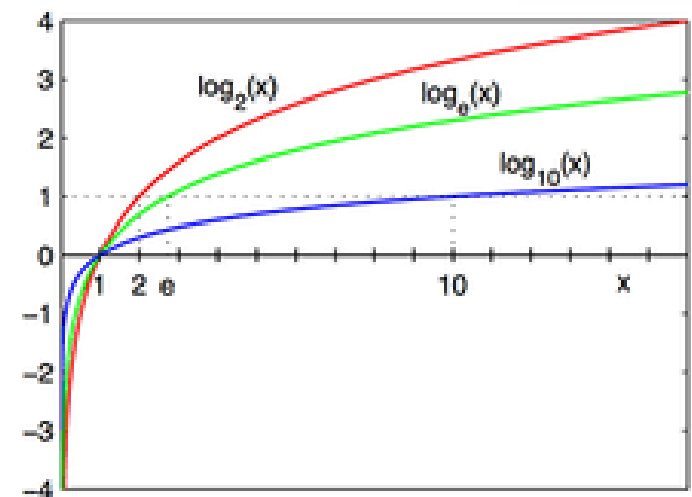
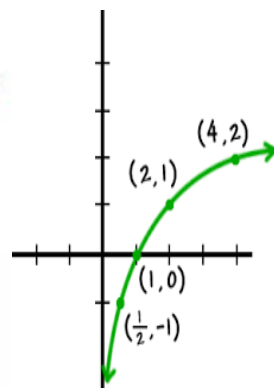
$$6) \log_b^a = \frac{\log a}{\log b}$$

$$7) a^{\log b} = b^{\log a}$$

$$8) a^{\log_a x} = x^{\log_a a} = x$$

$$9) \log_b^a \cdot \log_c^b = \log_c^a$$

$$10) \ln x = \log_e x = \log_{2.718} x$$



حانیہ نجیبی

