

# Mavzu: Logarifmik funksiya va xossalari

## Funksiyaning grafigini yasang

1. a)  $y = 2 + \log_3 x$ ;

**В)  $y = -3 + \log_4 x$ ;**

6)  $y = -1 + \log_{\frac{1}{3}} x$ ;

г)  $y = 0,5 + \log_{0,1} x$ .

2. a)  $y = 3 \log_4 x$ ;

**B)  $y = 5 \log_8 x$ ;**

$$6) y = 2 \log_{\frac{1}{3}} x;$$

$$\Gamma) y = \frac{1}{2} \log_{0,5} x.$$

a)  $y = -2\log_7 x$ ;

**В)  $y = -0,5 \log_2 x$ ;**

6)  $y = -4 \log_{\frac{1}{6}} x$ ;

$$\Gamma) y = -\log_{\frac{2}{3}} x.$$

a)  $y = \log_2 (x + 4)$ ;

**B)  $y = \log_5 (x - 1)$ ;**

6)  $y = \log_{\frac{1}{5}}(x - 3)$ ;

г)  $y = \log_{0,3}(x + 5)$ .

5. Функциянинг аниқланиш соҳасини топинг.

$$1) y = \frac{1}{\ln(1-x)} + \sqrt{x+2}$$

$$2) y = \frac{\sqrt{8-x}}{\lg(x-1)}$$

$$3) y = \log_{x-1}(x-1/4)$$

$$4) y = \log_2(64^{-x} - 8^{1-x})$$

$$5) y = \log_x(6-x)$$

$$6) y = \log_x(3-x)$$

$$7) y = \log_3(2-x)$$

$$8) y = \log_7(5-2x);$$

$$9) y = \log_2(x^2 - 2x)$$

6. Тенгламани график усулда ечинг:

$$1) \log_3 x = 5 - x;$$

$$2) \log_{\frac{1}{3}} x = 3x.$$

$$3) \log_3 x = \frac{3}{x};$$

$$4) 2^x = \log_{\frac{1}{2}} x.$$

$$5) 0,5^x = 2x + 1;$$

$$6) 2^x = 3 - x^2;$$

$$7) \log_3 x = 4 - x;$$

$$8) \log_{\frac{1}{2}} x = 4x^2;$$

7. Қуйидагиларни ўсиш тартибида жойлаштиринг

$$1) a = \log_{12} 5, \quad b = \log_{1/4} 3, \quad c = \log_{1/2} 3;$$

$$2) a = \log_{1/3} 3, \quad b = \log_{1/4} 3, \quad c = \log_{15} 4;$$

$$3) a = \log_{1/6} 4, \quad b = \log_{1/5} 6, \quad c = \log_{1/5} 4;$$

$$4) a = \log_{1/5} 10, \quad b = \log_{1/5} 15, \quad c = \log_{1/5} 20;$$

$$5) a = \log_5 10, \quad b = \log_5 20, \quad c = \log_5 11;$$

$$6) a = \log_{0,5} 4, \quad b = \log_{0,6} 4, \quad c = \log_{0,7} 4;$$