

Исследование функции на МОНОТОННОСТЬ

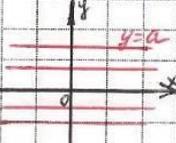
Задание

- 1. Изучить параграф 32**
- 2. Составить интеллект-карту (перерисовать своими руками)**
- 3. №№ 32.1, 32.2, 32.3, 32.11**

Линейная функция ГРАФИК - ПРЯМАЯ

$$y = a$$

Параллельно оси X



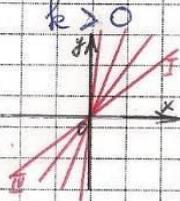
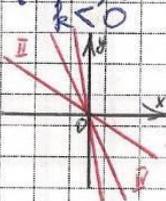
$$x = b$$

Параллельно оси Y



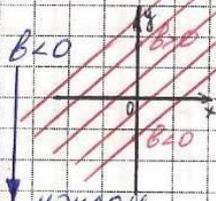
$$y = kx$$

(0; 0)!



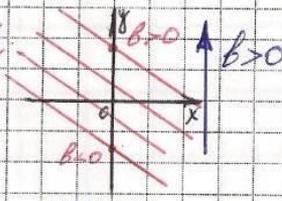
$$y = kx + b$$

$k > 0$



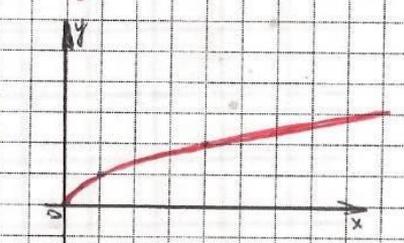
НАКЛОН ВПРАВО

$k < 0$



НАКЛОН ВЛЕВО

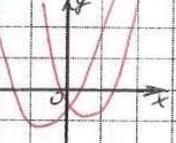
Функция $y = \sqrt{x}$ (квадратный корень)



Квадратичная функция $y = ax^2 + bx + c$

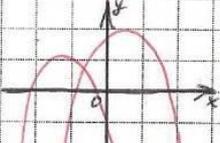
ГРАФИК - ПАРАБОЛА

$a > 0$



Ветви ВВЕРХ

$a < 0$

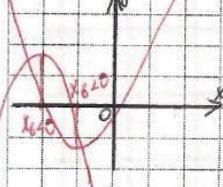


Ветви ВНИЗ

$$x_0 = -\frac{b}{2a}$$

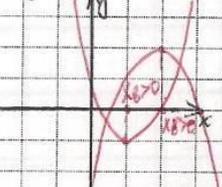
$x_0 > 0$

сдвиг вправо



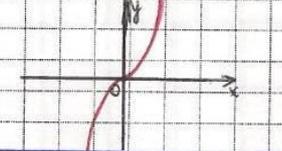
$x_0 < 0$

сдвиг влево

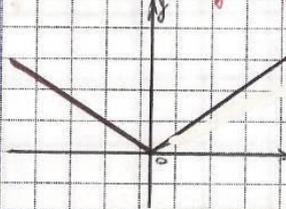


Задание 11 ГРАФИКИ ФУНКЦИЙ

Функция $y = x^3$
ГРАФИК - КУБИЧЕСКАЯ ПАРАБОЛА

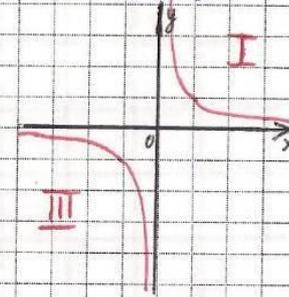


Функция $y = |x|$

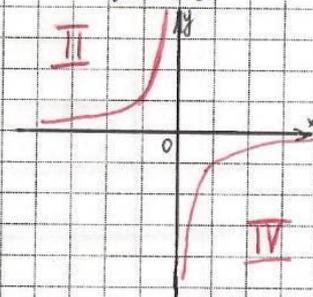


Функция $y = \frac{k}{x}$ ГРАФИК - ГИПЕРБОЛА

$k > 0$



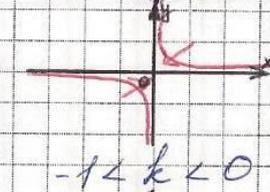
$k < 0$



III

IV

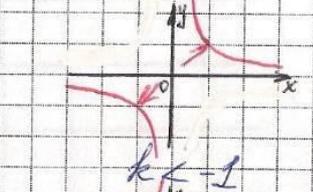
$0 < k < 1$



$-1 < k < 0$



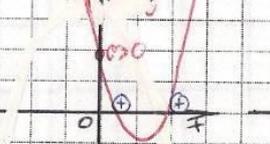
$k > 1$



$k < -1$

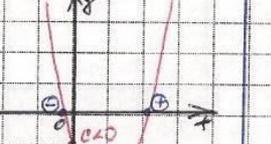


$c > 0$
(0; c)



КОРНИ ОДНОЗНАКОВЫХ ЗНАКОВ

$c < 0$
(0; c)



КОРНИ РАЗНЫХ ЗНАКОВ