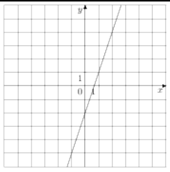
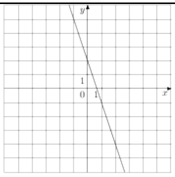
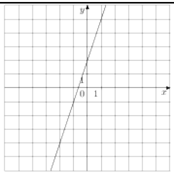
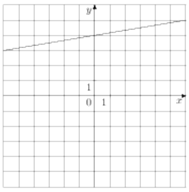
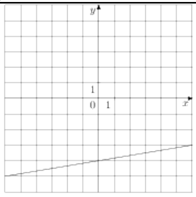
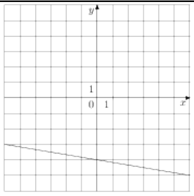
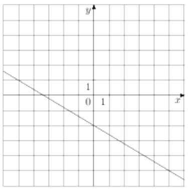
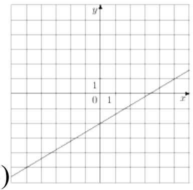
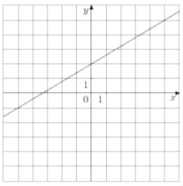
http://www.mathgia.ru/or/gia12/ShowProblems.html?posMask=16&showProto=true

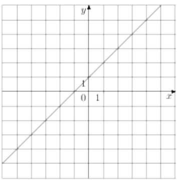
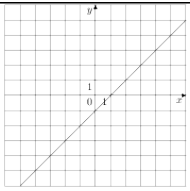
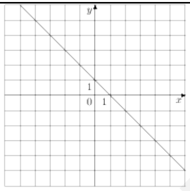
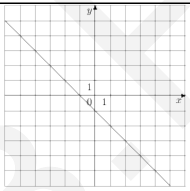
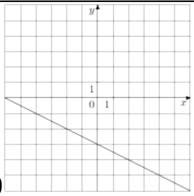
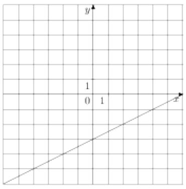
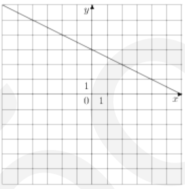
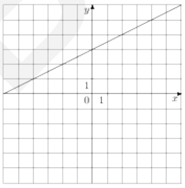
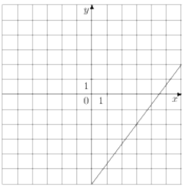
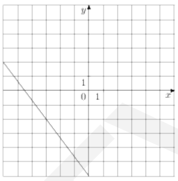
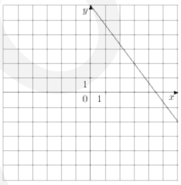
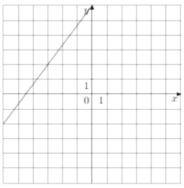
ПРОТОТИП 5_1

Установите соответствие между графиками функций и формулами, которые их задают.

1	 А)	 Б)	 В)	Формулы 1) $y=-3x-2$ 2) $y=-3x+2$ 3) $y=3x+2$ 4) $y=3x-2$
2	 А)	 Б)	 В)	Формулы 1) $y=\frac{1}{6}x+4$ 2) $y=-\frac{1}{6}x+4$ 3) $y=-\frac{1}{6}x-4$ 4) $y=\frac{1}{6}x-4$
3	 А)	 Б)	 В)	Формулы 1) $y=\frac{3}{5}x+2$ 2) $y=\frac{3}{5}x-2$ 3) $y=-\frac{3}{5}x+4$ 4) $y=-\frac{3}{5}x-2$

ПРОТОТИП 5_2

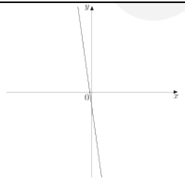
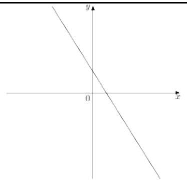
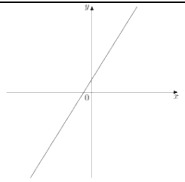
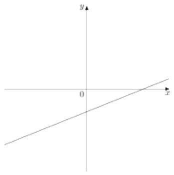
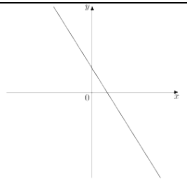
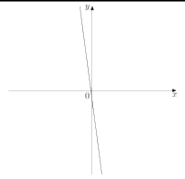
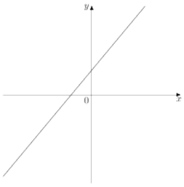
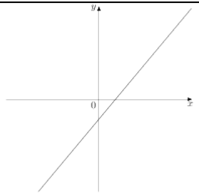
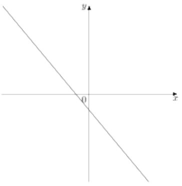
Установите соответствие между функциями и их графиками.

1	 1)	 2)	 3)	 4)	Функции А) $y=-x-1$ Б) $y=-x+1$ В) $y=x-1$
2	 1)	 2)	 3)	 4)	Функции А) $y=\frac{1}{2}x+3$ Б) $y=-\frac{1}{2}x+3$ В) $y=-\frac{1}{2}x-3$
3	 1)	 2)	 3)	 4)	Функции А) $y=-\frac{4}{3}x+6$ Б) $y=\frac{4}{3}x+6$ В) $y=-\frac{4}{3}x-6$

ПРОТОТИП 5_3

На рисунке изображены графики функций вида $y=kx+b$.

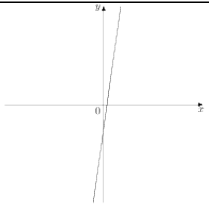
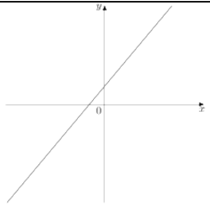
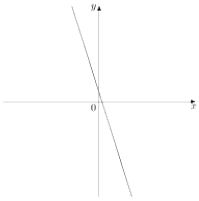
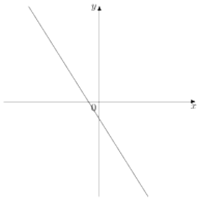
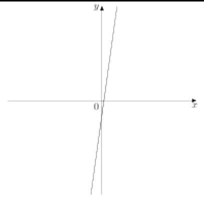
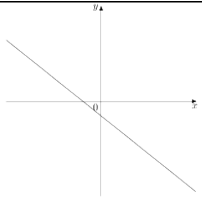
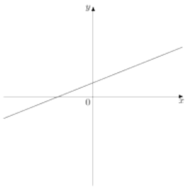
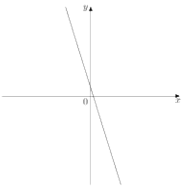
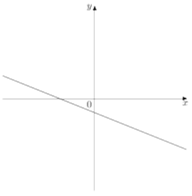
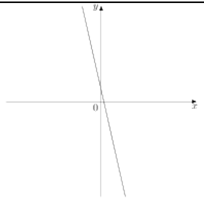
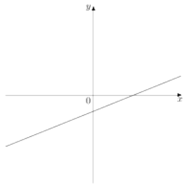
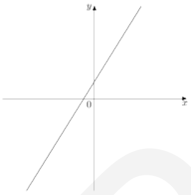
Установите соответствие между графиками и знаками коэффициентов k и b.

1	 А)	 Б)	 В)	Коэффициенты 1) $k>0$; $b<0$ 2) $k<0$; $b>0$ 3) $k<0$; $b<0$ 4) $k>0$; $b>0$
2	 А)	 Б)	 В)	Коэффициенты 1) $k<0$; $b<0$ 2) $k<0$; $b>0$ 3) $k>0$; $b>0$ 4) $k>0$; $b<0$
3	 А)	 Б)	 В)	Коэффициенты 1) $k<0$; $b>0$ 2) $k>0$; $b>0$ 3) $k<0$; $b<0$ 4) $k>0$; $b<0$

ПРОТОТИП 5_4

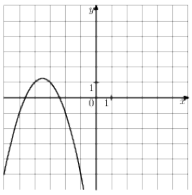
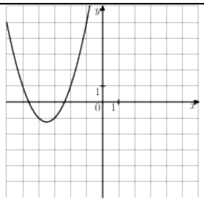
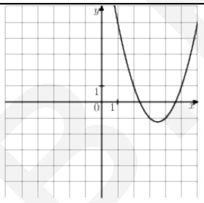
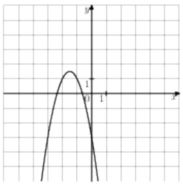
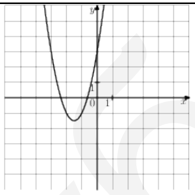
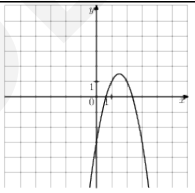
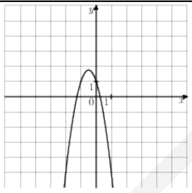
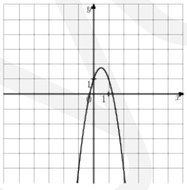
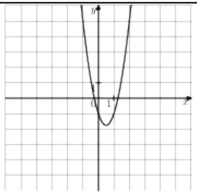
На рисунке изображены графики функций вида $y = kx + b$.

Установите соответствие между графиками и знаками коэффициентов k и b.

1	1) 	2) 	3) 	4) 	Коэффициенты А) $k < 0$; $b < 0$ Б) $k > 0$; $b > 0$ В) $k < 0$; $b > 0$
2	1) 	2) 	3) 	4) 	Коэффициенты А) $k < 0$; $b < 0$ Б) $k > 0$; $b > 0$ В) $k < 0$; $b > 0$
3	1) 	2) 	3) 	4) 	Коэффициенты А) $k < 0$; $b < 0$ В) $k > 0$; $b < 0$ Б) $k < 0$; $b > 0$

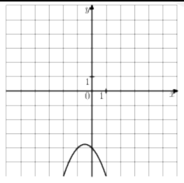
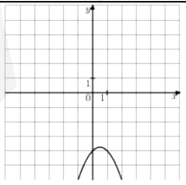
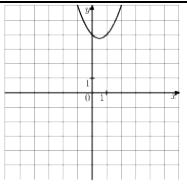
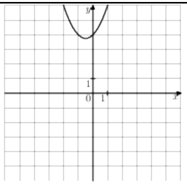
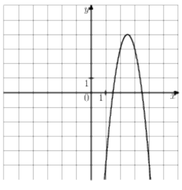
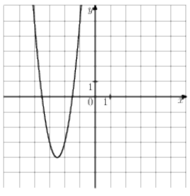
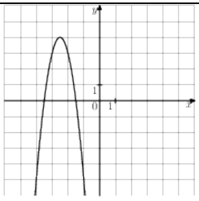
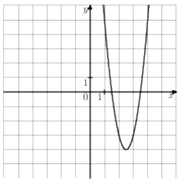
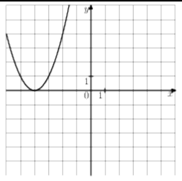
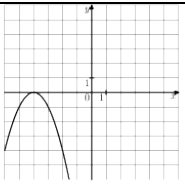
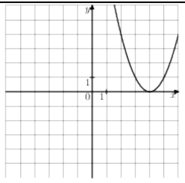
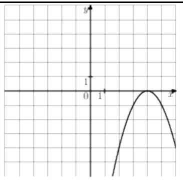
ПРОТОТИП 5_5

Установите соответствие между графиками функций и формулами, которые их задают.

1	А) 	Б) 	В) 	Формулы 1) $y = -x^2 - 7x - 11$ 2) $y = -x^2 + 7x - 11$ 3) $y = x^2 + 7x + 11$ 4) $y = x^2 - 7x + 11$
2	А) 	Б) 	В) 	Формулы 1) $y = 2x^2 + 6x + 3$ 2) $y = 2x^2 - 6x + 3$ 3) $y = -2x^2 - 6x - 3$ 4) $y = -2x^2 + 6x - 3$
3	А) 	Б) 	В) 	Формулы 1) $y = -3x^2 + 3x + 1$ 2) $y = -3x^2 - 3x + 1$ 3) $y = 3x^2 + 3x - 1$ 4) $y = 3x^2 - 3x - 1$

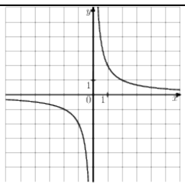
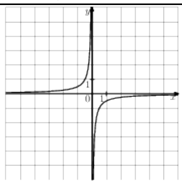
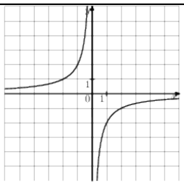
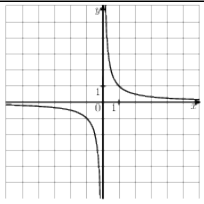
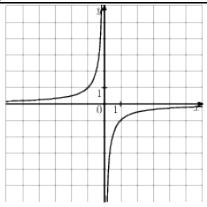
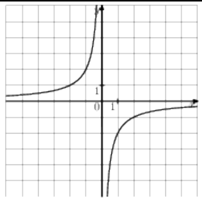
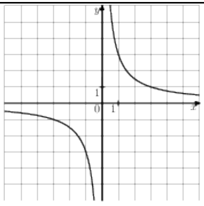
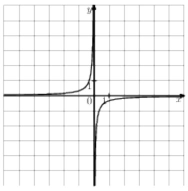
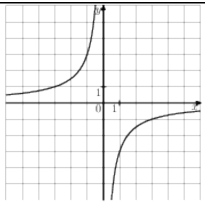
ПРОТОТИП 5_6

Установите соответствие между функциями и их графиками.

1	1) 	2) 	3) 	4) 	Функции А) $y = x^2 + x + 4$ Б) $y = -x^2 + x - 4$ В) $y = x^2 - x + 4$
2	1) 	2) 	3) 	4) 	Функции А) $y = -4x^2 + 20x - 21$ Б) $y = 4x^2 - 20x + 21$ В) $y = 4x^2 + 20x + 21$
3	1) 	2) 	3) 	4) 	Функции А) $y = x^2 - 8x + 16$ Б) $y = -x^2 + 8x - 16$ В) $y = x^2 + 8x + 16$

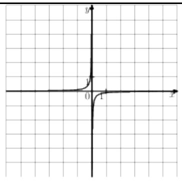
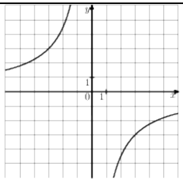
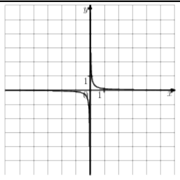
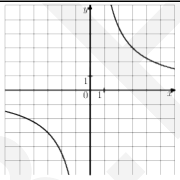
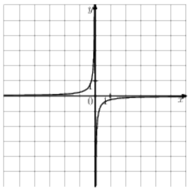
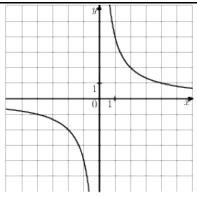
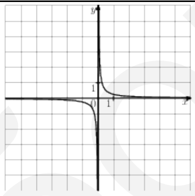
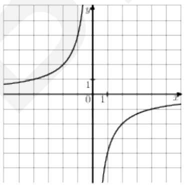
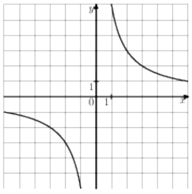
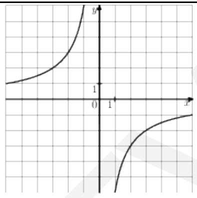
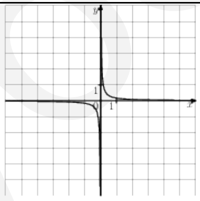
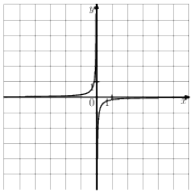
ПРОТОТИП 5_7

Установите соответствие между графиками функций и формулами, которые их задают.

1	 А)	 Б)	 В)	Формулы 1) $y=\frac{1}{2x}$ 2) $y=-\frac{2}{x}$ 3) $y=\frac{2}{x}$ 4) $y=-\frac{1}{2x}$
2	 А)	 Б)	 В)	Формулы 1) $y=-\frac{2}{x}$ 2) $y=\frac{1}{x}$ 3) $y=-\frac{1}{x}$ 4) $y=-\frac{1}{2x}$
3	 А)	 Б)	 В)	Формулы 1) $y=-\frac{1}{3x}$ 2) $y=\frac{1}{3x}$ 3) $y=\frac{3}{x}$ 4) $y=-\frac{3}{x}$

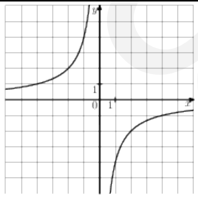
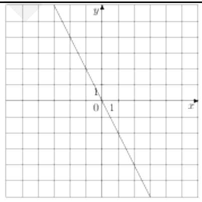
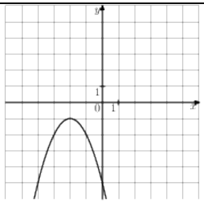
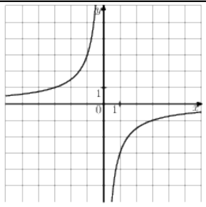
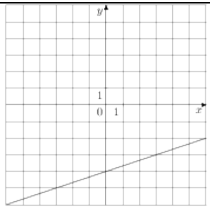
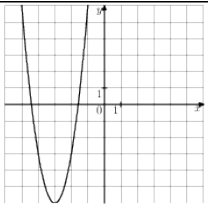
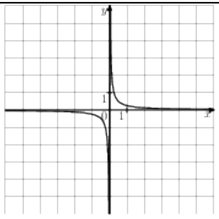
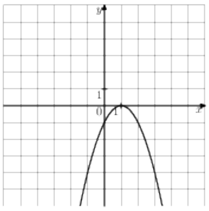
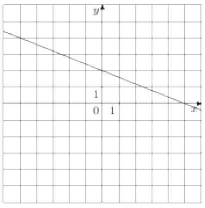
ПРОТОТИП 5_8

Установите соответствие между функциями и их графиками.

1	 1)	 2)	 3)	 4)	Функции А) $y=-\frac{9}{x}$ Б) $y=\frac{1}{9x}$ В) $y=\frac{9}{x}$
2	 1)	 2)	 3)	 4)	Функции А) $y=\frac{4}{x}$ Б) $y=-\frac{1}{4x}$ В) $y=-\frac{4}{x}$
3	 1)	 2)	 3)	 4)	Функции А) $y=-\frac{1}{6x}$ Б) $y=-\frac{6}{x}$ В) $y=\frac{6}{x}$

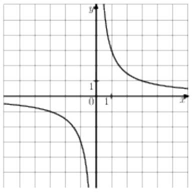
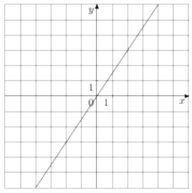
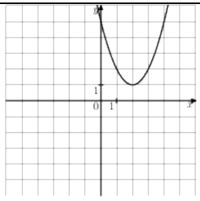
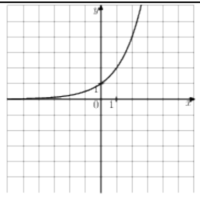
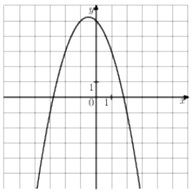
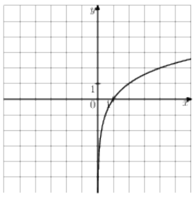
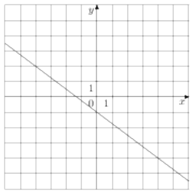
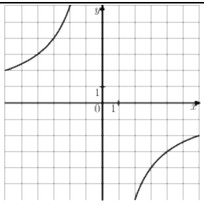
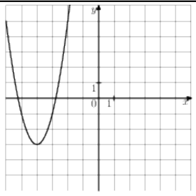
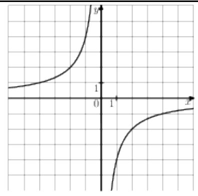
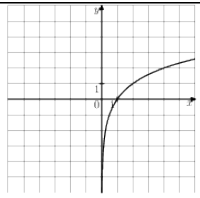
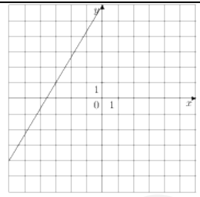
ПРОТОТИП 5_9

Установите соответствие между графиками функций и формулами, которые их задают.

1	 А)	 Б)	 В)	Формулы 1) $y=-\frac{4}{x}$ 2) $y=-\frac{2}{x}$ 3) $y=-2x$ 4) $y=-x^2-4x-5$
2	 А)	 Б)	 В)	Формулы 1) $y=-\frac{3}{x}$ 2) $y=\frac{1}{3}x-4$ 3) $y=\frac{1}{6}x+5$ 4) $y=3x^2+18x+21$
3	 А)	 Б)	 В)	Формулы 1) $y=-x^2+2x-1$ 2) $y=-\frac{1}{2}x-4$ 3) $y=-\frac{2}{5}x+2$ 4) $y=\frac{1}{4x}$

ПРОТОТИП 5_10

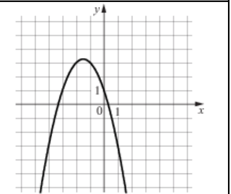
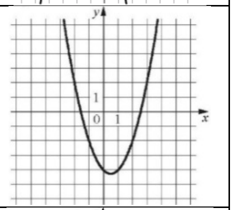
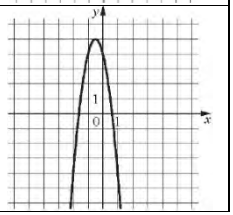
Установите соответствие между функциями и их графиками.

1	 1)	 2)	 3)	 4)	Функции А) $y=\frac{3}{x}$ Б) $y=x^2-4x+5$ В) $y=\frac{3x}{2}$
2	 1)	 2)	 3)	 4)	Функции А) $y=-x^2-x+5$ Б) $y=-\frac{3}{4}x-1$ В) $y=-\frac{12}{x}$
3	 1)	 2)	 3)	 4)	Функции А) $y=2x^2+16x+29$ Б) $y=\frac{5}{3}x+6$ В) $y=-\frac{4}{x}$

ПРОТОТИП 5_11

На рисунке изображена функция $y = ax^2 + вx + c$.

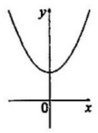
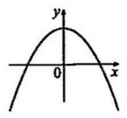
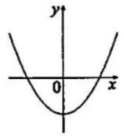
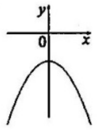
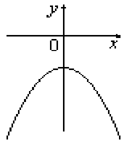
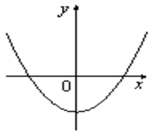
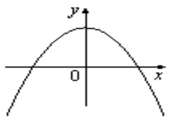
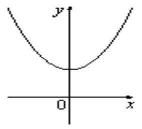
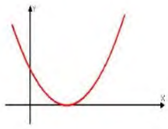
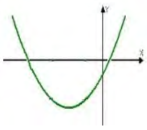
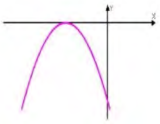
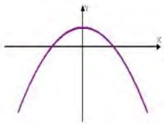
Установите соответствие между утверждениями и промежутками, на которых эти утверждения удовлетворяются.

1	Утверждения	А) Функция возрастает на промежутке		Б) Функция убывает на промежутке		
	Промежутки	1) [- 3; -1,5]	2) [- 2; 0]	3) [- 3; -1]	4) [- 1,5; 0]	
2	Утверждения	А) Функция возрастает на промежутке		Б) Функция убывает на промежутке		
	Промежутки	1) [0; 3]	2) [- 3; 2]	3) [1; 4]	4) [- 1; 0]	
3	Утверждения	А) Функция возрастает на промежутке		Б) Функция убывает на промежутке		
	Промежутки	1) [- 3; -2]	2) [- 3; 0]	3) [- 1; 2]	4) [1; 2]	

ПРОТОТИП 5_

На рисунке изображены графики функций вида $y = ax^2 + вx + c$.

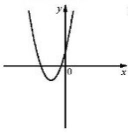
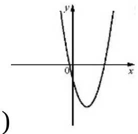
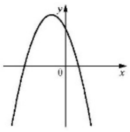
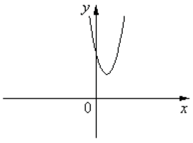
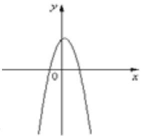
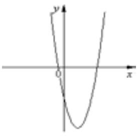
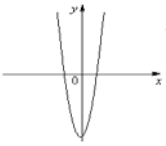
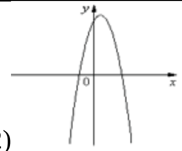
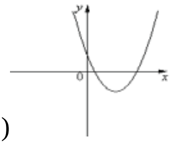
Установите соответствие между графиками и знаками коэффициентов a и c.

1	 А)	 Б)	 В)	 Г)	Коэффициенты 1) $a>0;\ c<0$ 2) $a<0;\ c>0$ 3) $a>0;\ c>0$ 4) $a<0;\ c<0$
2	 А)	 Б)	 В)	 Г)	Коэффициенты 1) $a>0;\ c<0$ 2) $a>0;\ c>0$ 3) $a<0;\ c>0$ 4) $a<0;\ c<0$
3	 А)	 Б)	 В)	 Г)	Коэффициенты 1) $a<0;\ c>0$ 2) $a<0;\ c<0$ 3) $a>0;\ c>0$ 4) $a>0;\ c<0$

ПРОТОТИП 5_

На рисунке изображены графики функций вида $y = ax^2 + вx + c$.

Установите соответствие между графиками и знаками коэффициентов a и c.

1	 1)	 2)	 3)	Коэффициенты А) $a > 0$; $c < 0$ Б) $a < 0$; $c > 0$ В) $a > 0$; $c > 0$
2	 1)	 2)	 3)	Коэффициенты А) $a < 0$; $c > 0$ Б) $a > 0$; $c > 0$ В) $a > 0$; $c < 0$
3	 1)	 2)	 3)	Коэффициенты А) $a < 0$; $c > 0$ Б) $a > 0$; $c < 0$ В) $a > 0$; $c > 0$

ОТВЕТЫ 5

	1	2	3	4	5	6	7	8	9	10	11
1											
2											
3											
4											
5											
6											