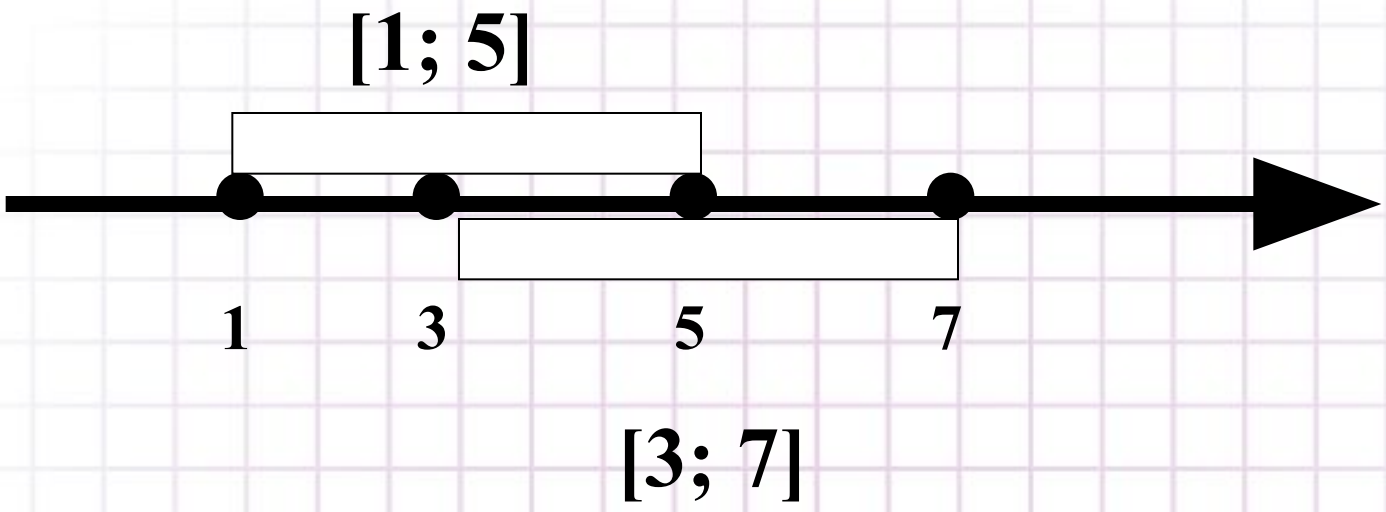
Числовые промежутки

$$[1; 5] \cap [3; 7] = [3; 5]$$

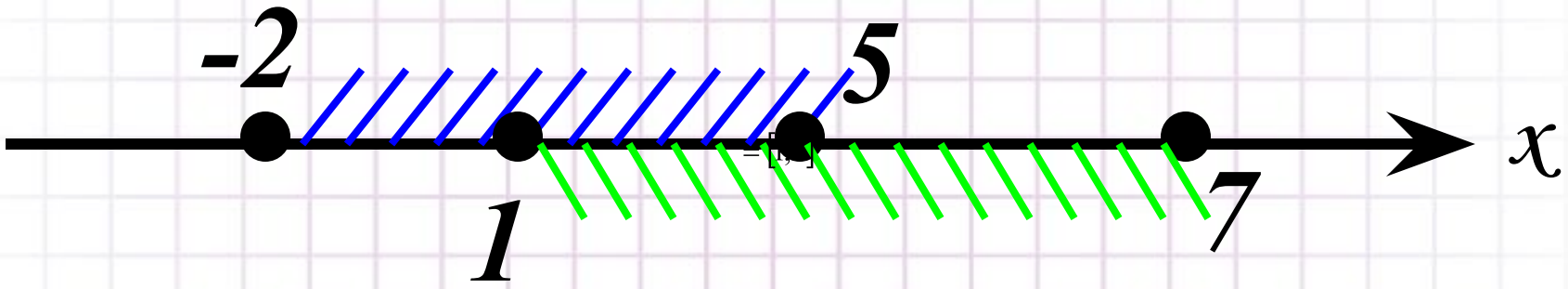


[3; 5] - Общая часть

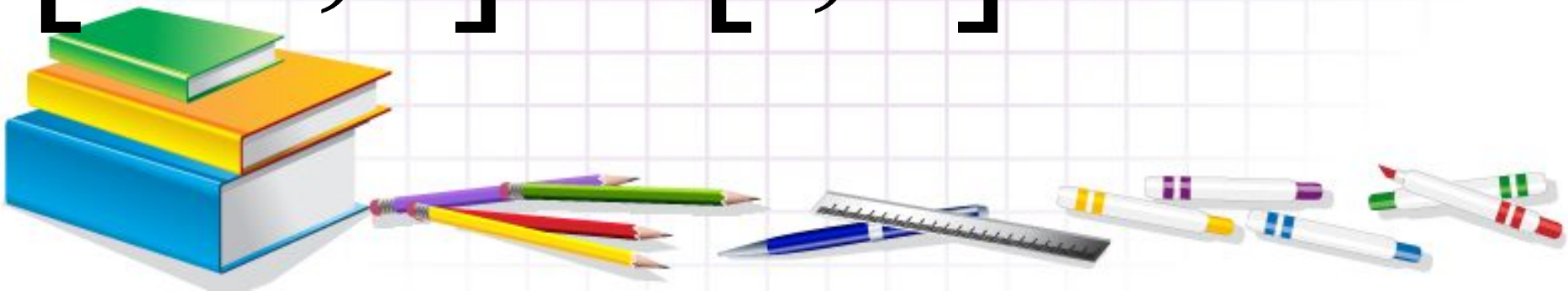
Множество, составляющее общую часть некоторых множеств A и B, называют *пересечением* этих множеств.

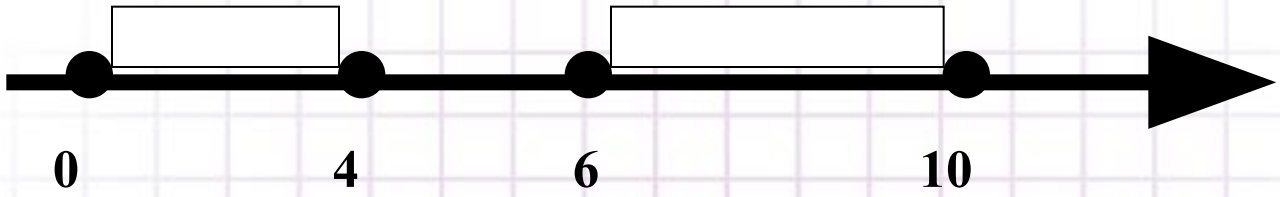
Обозначают: A ∩ B

Пересечение промежутков.



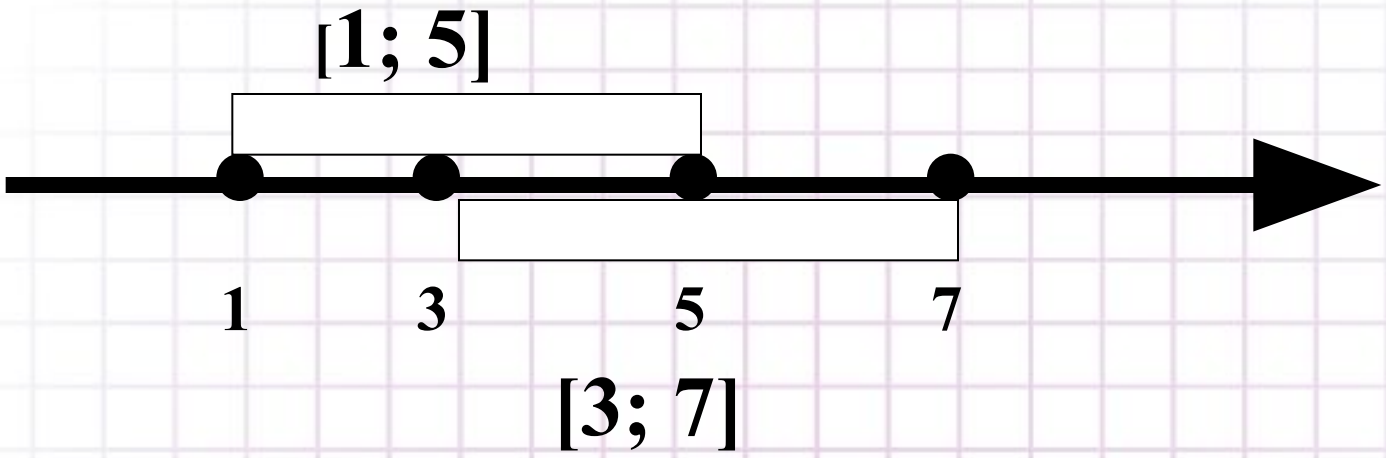
$$[-2;5] \cap [1;7]$$





Пересечение промежутков [0; 4] и [6; 10]
<u>пустое множество</u>

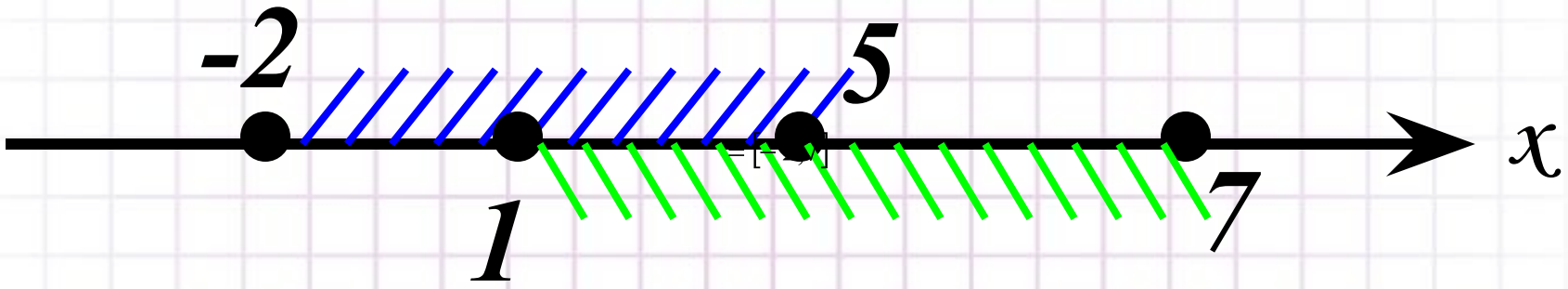
[1; 5] U [3; 7] = [1; 7]



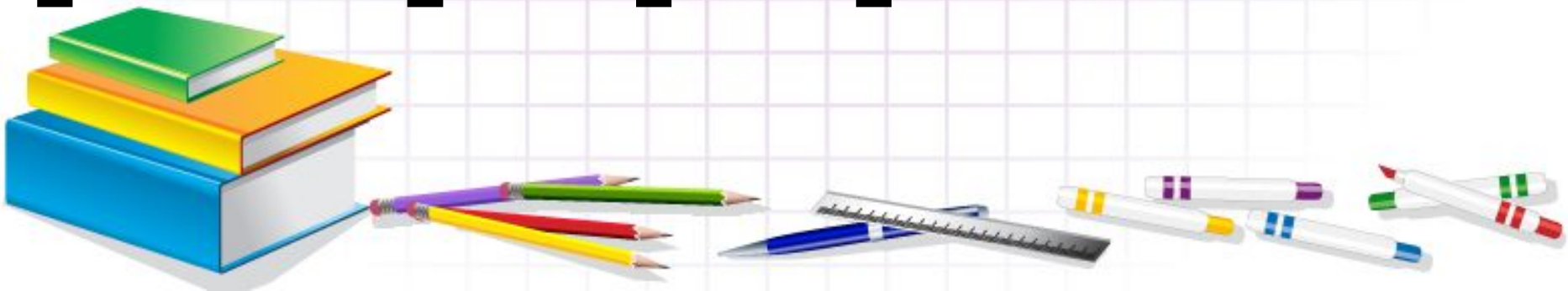
Множество, состоящее из элементов, принадлежащих хотя бы одному из множеств A и B, называют *объединением* этих множеств.

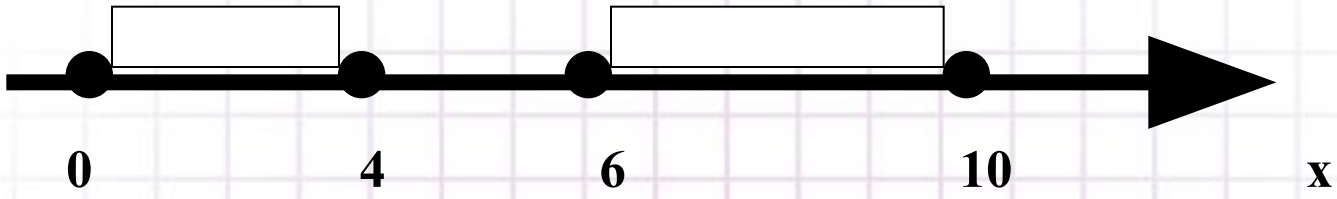
Обозначают: A U B

Объединение промежутков.



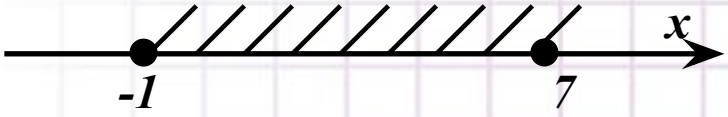
$$[-2;5] \cup [1;7]$$





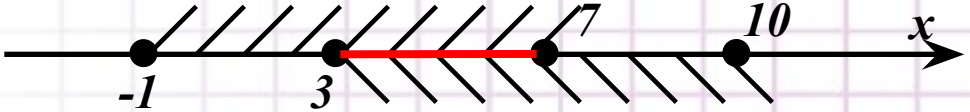
[0; 4] U [6; 10] **Не является промежутком**

Пересечение и объединение числовых промежутков

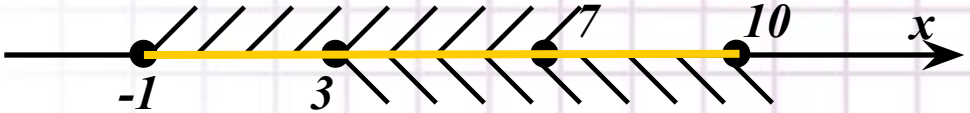


[-1; 7]

[3; 10]

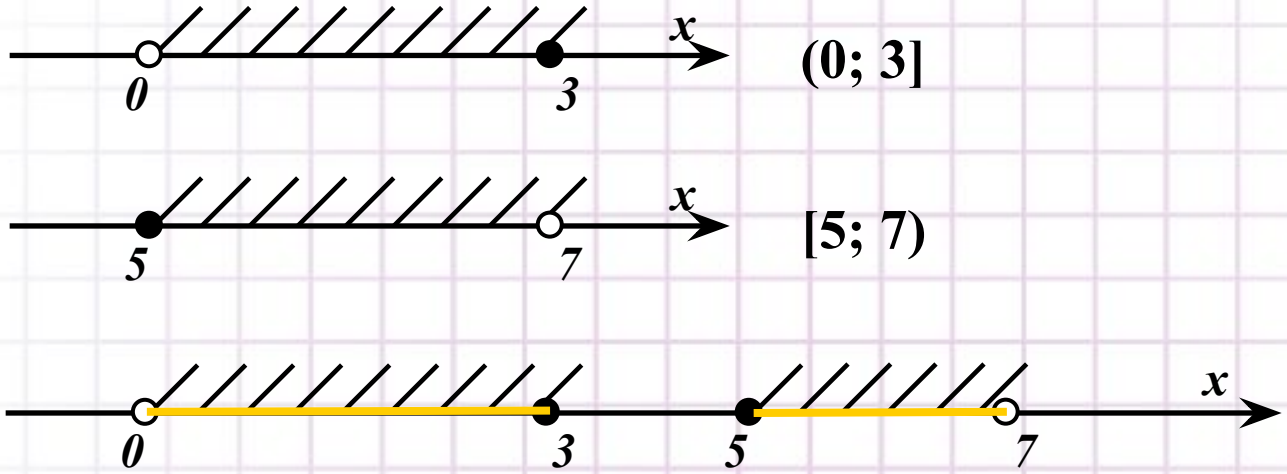


[-1; 7] ∩ [3; 10] = [3; 7]



[-1; 7] ∪ [3; 10] = [-1; 10]

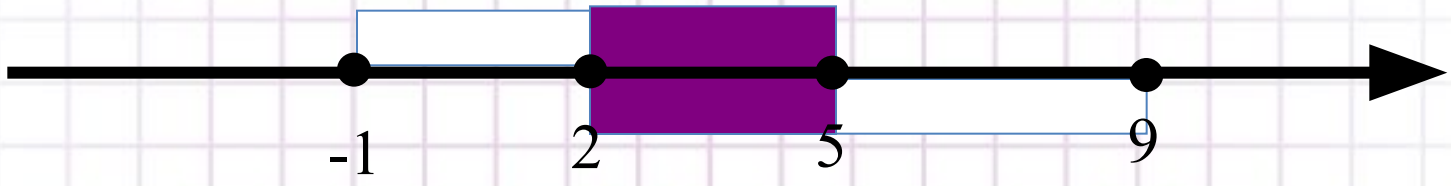
Пересечение и объединение числовых промежутков



(0; 3] ∪ [5; 7) - объединение

(0; 3] ∩ [5; 7) = Ø

Пересечение и объединение числовых промежутков



Пересечение: $[-1;5] \cap [2;9] = [2;5]$

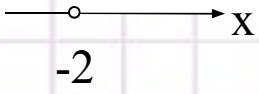
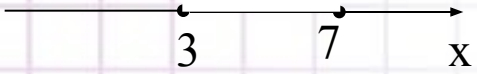
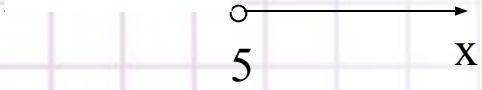
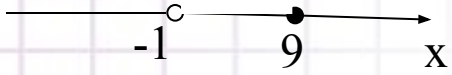
Объединение: $[-1;5] \cup [2;9] = [-1;9]$

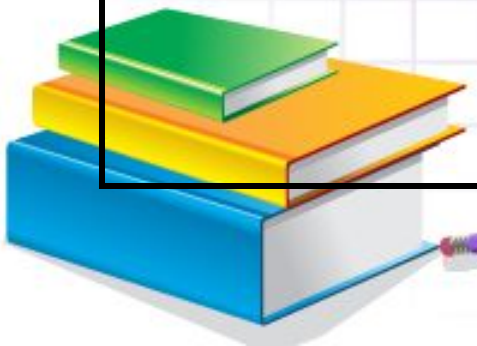
Пересечение и объединение числовых промежутков

Пересечение: $[-1;2]\cap[5;9]=\varnothing$

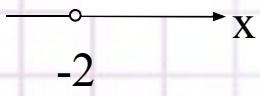
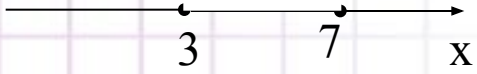
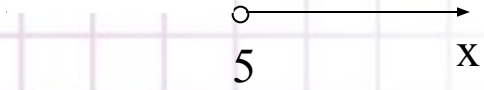
Объединение: $[-1;2]\cup[5;9]$

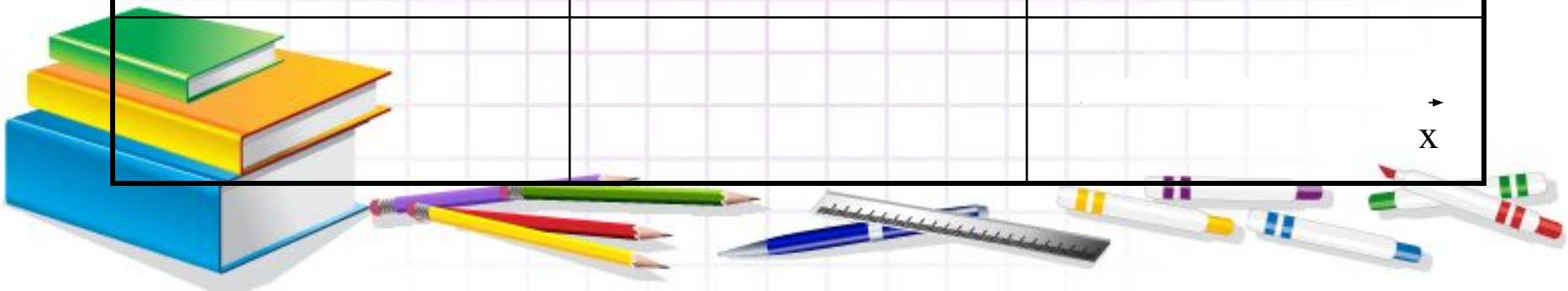
Заполни таблицу

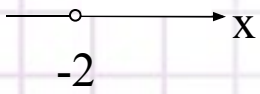
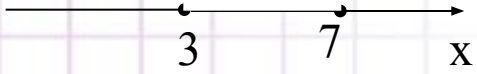
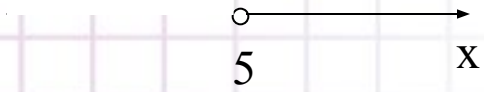


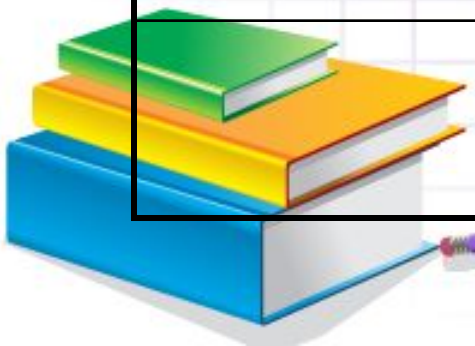
Заполни таблицу

$(-2; +\infty)$		
		
		
		

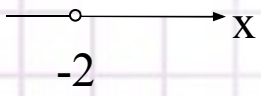
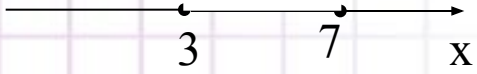
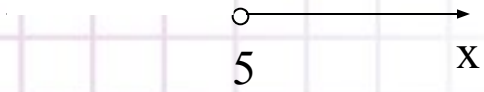


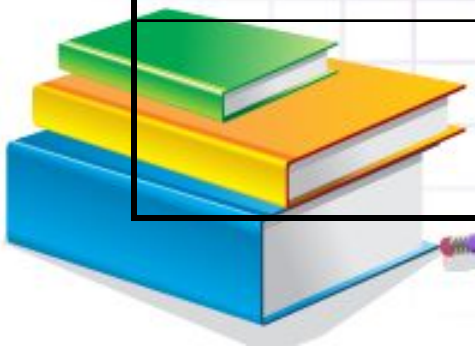
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
		
		
		
		

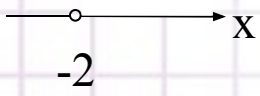
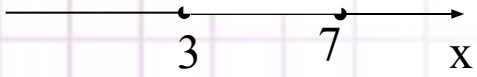
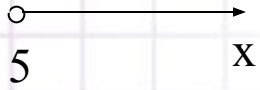


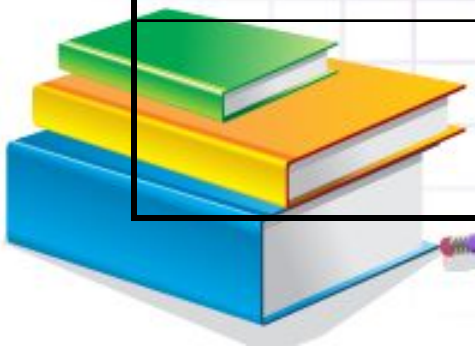
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
$[3; 7]$		
		
		
		

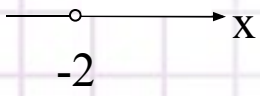
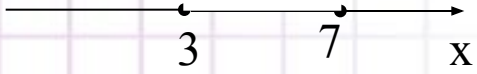
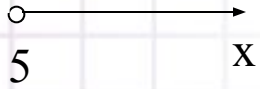


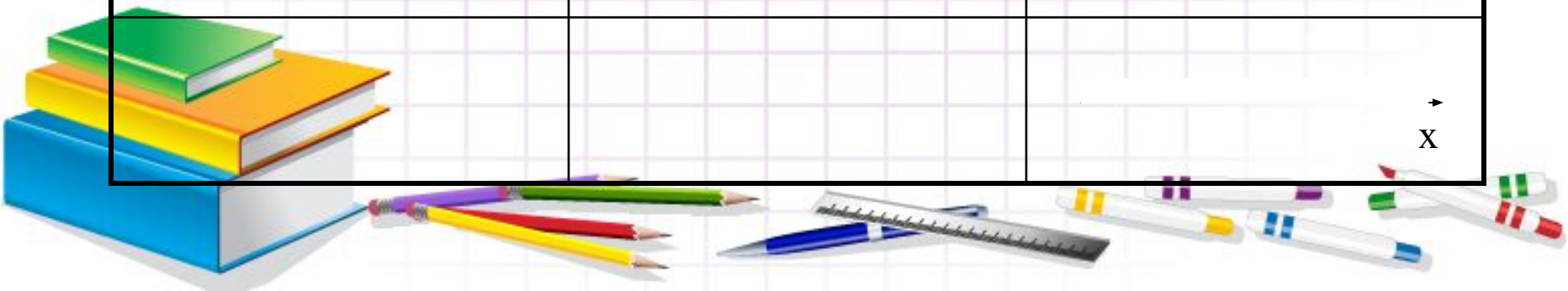
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
		
		
		

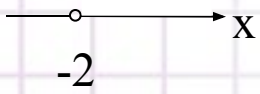
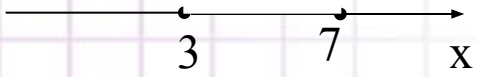
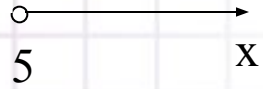


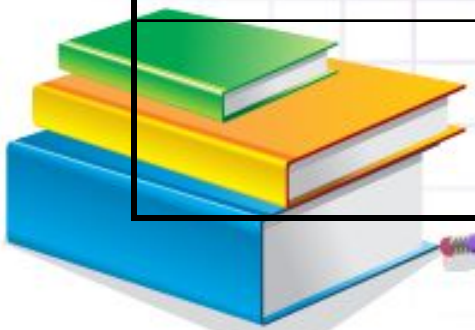
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
$(-\infty ; 5)$		
		

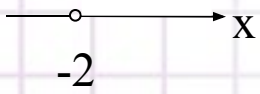
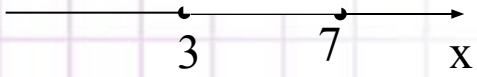
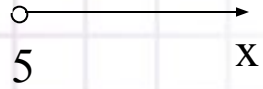


Заполни таблицу

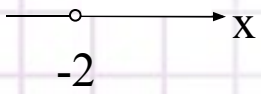
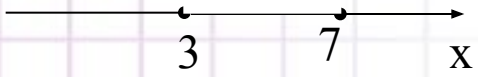
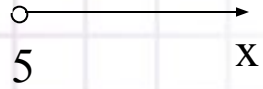
$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \leq X \leq 7$	
$(-\infty ; 5)$	$X < 5$	
		
		



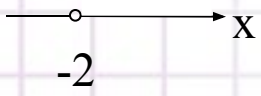
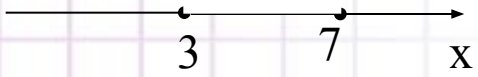
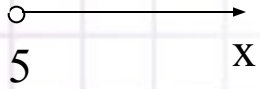
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
$(-\infty ; 5)$	$X < 5$	
$(-1; 9]$		
		

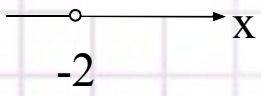
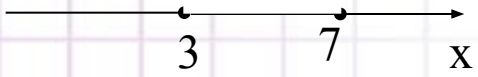
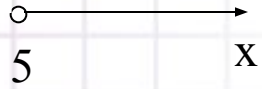
Заполни таблицу

$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
$(-\infty ; 5)$	$X < 5$	
$(-1; 9]$	$-1 < X \le 9$	
		

Заполни таблицу

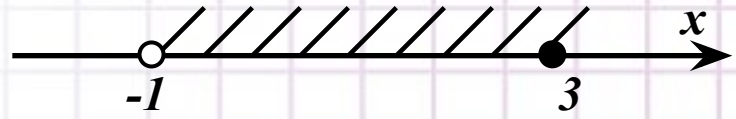
$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
$(-\infty ; 5)$	$X < 5$	
$(-1; 9]$	$-1 < X \le 9$	
$(-\infty ; +\infty)$		

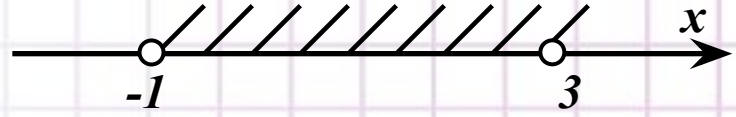
Заполни таблицу

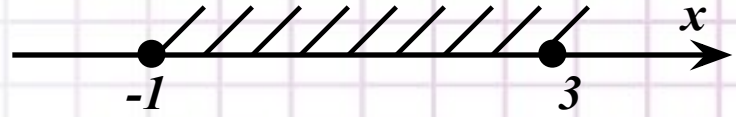
$(-2; +\infty)$	$X > -2$	
$[3; 7]$	$3 \le X \le 7$	
$(-\infty ; 5)$	$X < 5$	
$(-1; 9]$	$-1 < X \le 9$	
$(-\infty ; +\infty)$	X - любое число	

ТЕСТ: задание 1 – найти соответствие между числовыми промежутками и их обозначениями

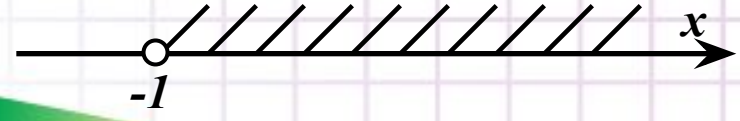
ОТВЕТЫ:

а) 

б) 

в) 

г) 

д) 

е)

1) (-∞; 3]

2) [-1; 3]

3) (-1; 3]

4) (-1; ∞)

5) (-1; 3)

6) [-1; 3]

а – 3

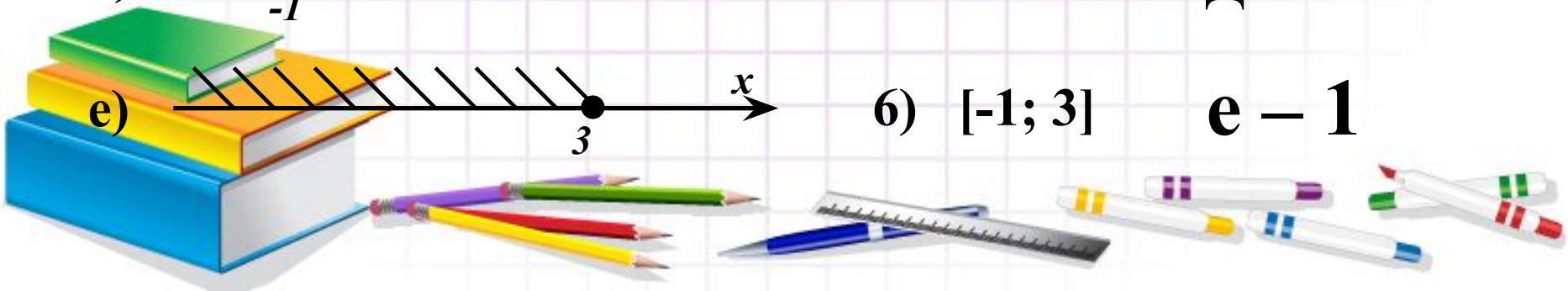
б – 5

в – 6

г – 2

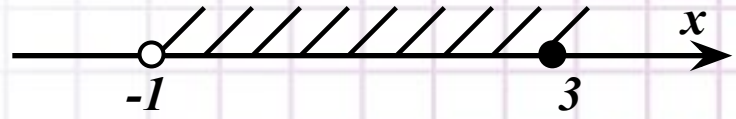
д – 4

е – 1

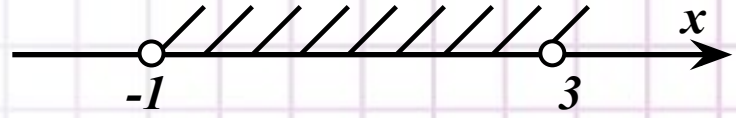


ТЕСТ: задание 2 – найти в данных промежутках следующие целые числа:

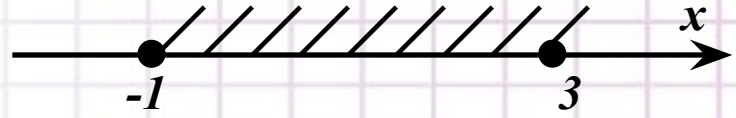
ОТВЕТЫ:

а) 

- наименьшее **а = 0**

б) 

- наибольшее **б = 2**

в) 

- наименьшее **в = -1**

г) 

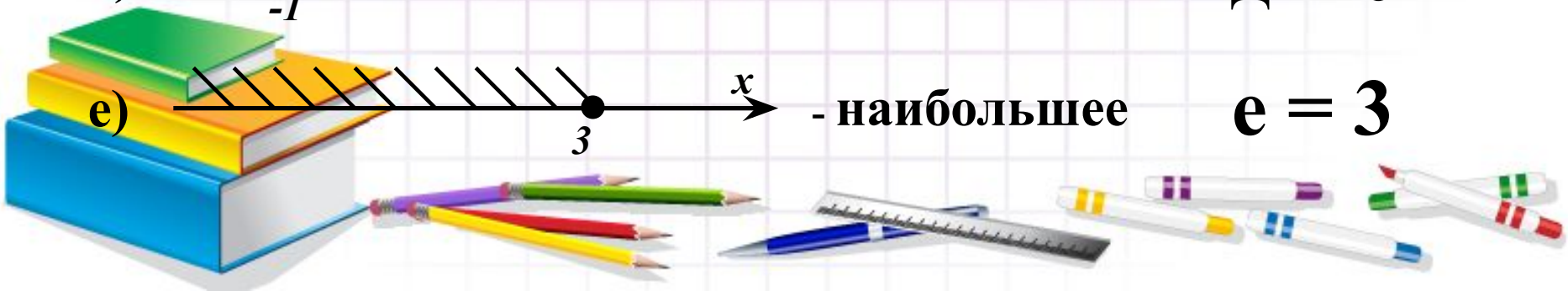
- наибольшее **г = 3**

д) 

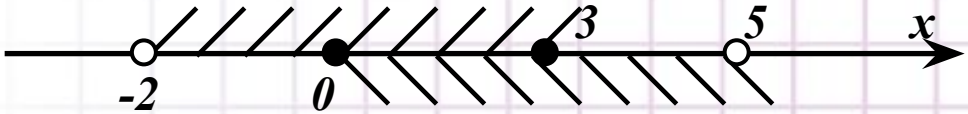
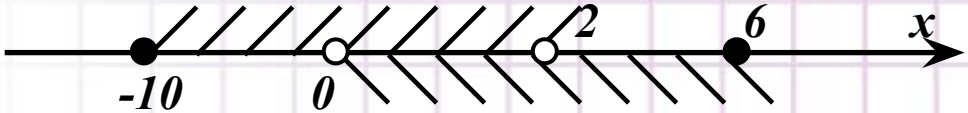
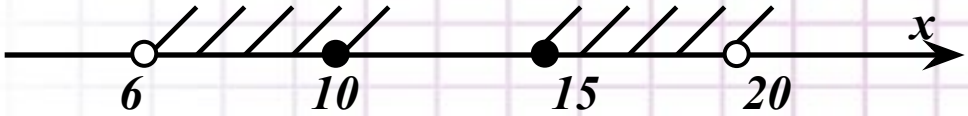
- наименьшее **д = 0**

е)

- наибольшее **е = 3**



ТЕСТ: задание 3 – найти пересечение и объединение числовых промежутков

		Пересечение:	Объединение:
а)		[0; 3]	(-2; 5)
б)		(0; 2)	[-10; 6]
в)		∅	нет
г)		(-2; 2]	(-∞; ∞)

Спасибо за работу на уроке!