

Name: _____ Date: _____

Graph each piecewise function.

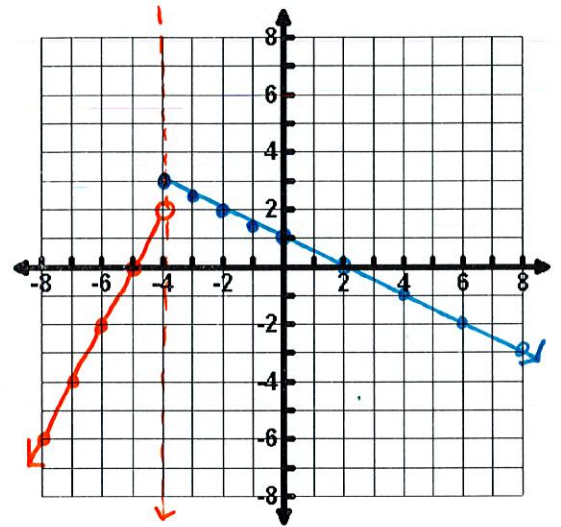
$$1. f(x) = \begin{cases} 2x+10 & x < -4 \\ -\frac{1}{2}x+1 & x \geq -4 \end{cases}$$

o $2x+10$

x	y
-4	2
-5	0
-6	-2
-7	-4
-8	-6

o $-\frac{1}{2}x+1$

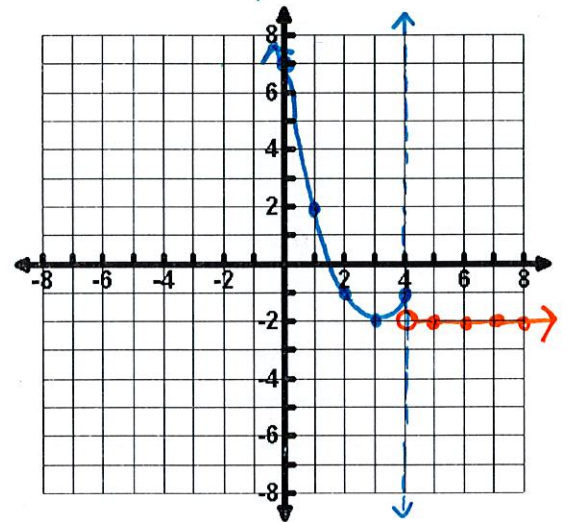
x	y
-4	3
-3	$5/2$
-2	2
-1	$3/2$
0	1



$$2. f(x) = \begin{cases} (x-3)^2 - 2 & x \leq 4 \\ -2 & x > 4 \end{cases}$$

x	y
4	-1
3	-2
2	-1
1	2
0	7

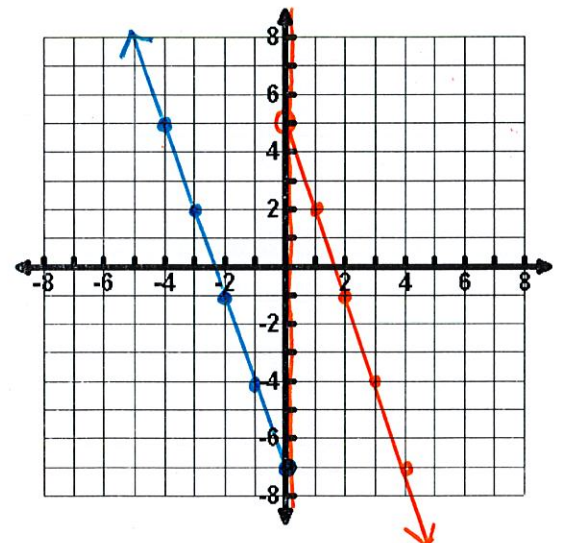
x	y
4	-2
5	-2
6	-2
7	-2
8	-2



$$3. f(x) = \begin{cases} -3x - 7 & x \leq 0 \\ -3x + 5 & x > 0 \end{cases}$$

x	y
0	-7
-1	-4
-2	-1
-3	2
-4	5

x	y
0	5
1	2
2	-1
3	-4
4	-7

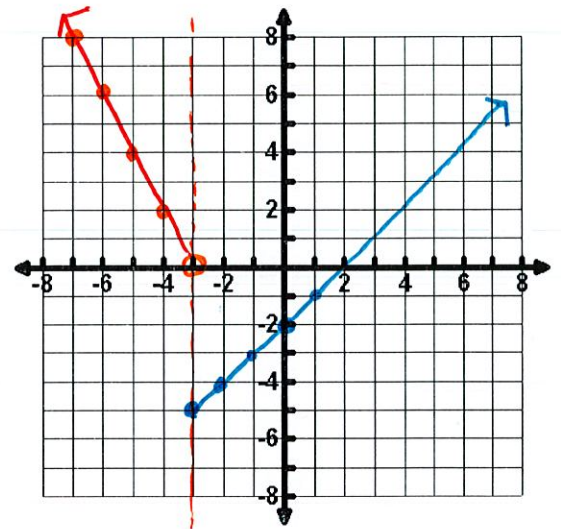


$$4. h(x) = \begin{cases} -2x - 6, & x < -3 \\ x - 2, & x \geq -3 \end{cases}$$

o $-2x - 6$

x	y
-3	0
-4	2
-5	4
-6	6
-7	8

x	y
-3	-5
-2	-4
-1	-3
0	-2
1	-1



$$5. h(x) = \begin{cases} -x + 5 & x < 0 \\ -6 & 0 \leq x < 4 \\ x - 6 & x \geq 4 \end{cases}$$

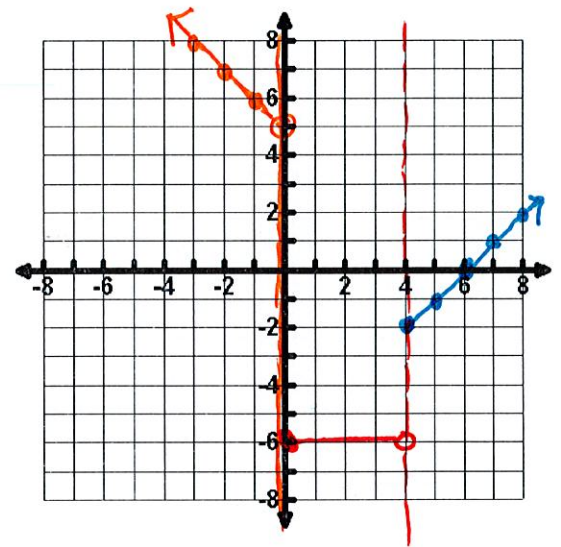
x	y
0	5
-1	6
-2	7
-3	8
-4	9

•

x	y
0	-6
1	-6
2	-6
3	-6
4	-6

o

x	y
4	-2
5	-1
6	0
7	1
8	2



$$6. f(x) = \begin{cases} x & x \leq 2 \\ 5 & 2 < x < 4 \\ -x & x \geq 4 \end{cases}$$

x	y
2	2
1	1
0	0
-1	-1
-2	-2

o

x	y
2	5
3	5
4	5

•

x	y
4	-4
5	-5
6	-6
7	-7
8	-8

