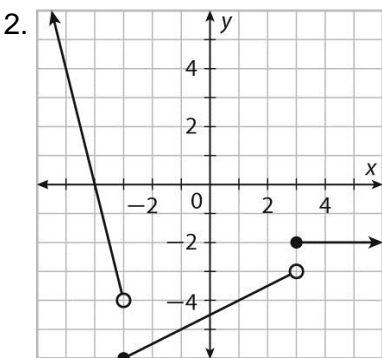
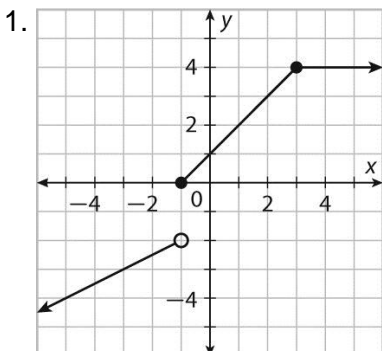


MODULE 13 Piecewise-Defined Functions

LESSON 13-1

Practice and Problem Solving: A/B



$$3. f(x) = \begin{cases} -x - 8 & x < -3 \\ 0.5x + 0.5 & -3 \leq x \leq 3 \\ 2x - 3 & x > 3 \end{cases}$$

$$4. f(x) = \begin{cases} 0.5x - 2.5 & x < -3 \\ 0.5x - 0.5 & -3 \leq x < 1 \\ 0.5x + 1.5 & x \geq 1 \end{cases}$$

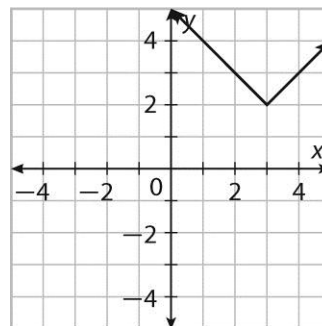
5. \$2.00; \$4.00; \$0.00; \$0.00

LESSON 13-2

Practice and Problem Solving: A/B

1. Sample table

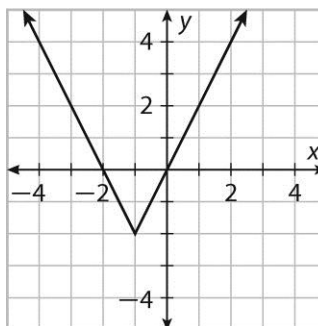
x	$f(x)$
0	5
1	4
2	3
3	2
4	3
5	4



Domain = {Real Numbers},
Range = $\{y \geq 2\}$

2. Sample table

x	$f(x)$
-4	4
-3	2
-2	0
-1	-2
0	0
1	2



Domain = {Real Numbers},
Range = $\{y \geq -2\}$

3. $f(x) = |x + 1| + 1$

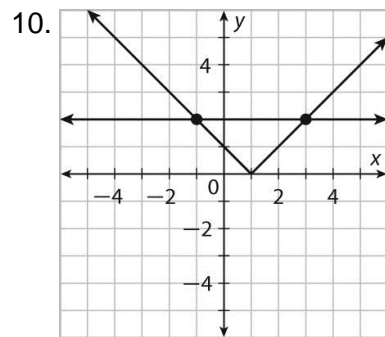
4. $f(x) = -|x - 2| + 2$

5. $f(x) = |x - 22.3|$

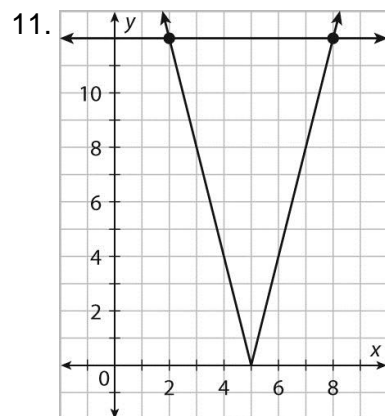
LESSON 13-3

Practice and Problem Solving: A/B

1. two
2. one
3. none
4. $x = -12$ or $x = 12$
5. $x = -\frac{1}{2}$ or $x = \frac{1}{2}$
6. $x = -10$ or $x = 10$
7. $x = -9$ or $x = 9$
8. $x = -8$ or $x = 8$
9. $x = -13$ or $x = 7$



$x = -1$ or $x = 3$



$x = 2$ or $x = 8$

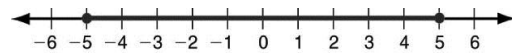
12. $|x - 68| = 3.5$

13. 64.5° ; 71.5°

LESSON 13-4

Practice and Problem Solving: A/B

1. $x \geq -5$ and $x \leq 5$



2. $x > -3$ and $x < 1$



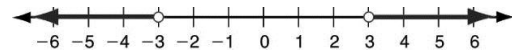
3. $x \geq 3$ and $x \leq 9$



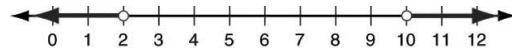
4. $x > -7$ and $x < 1$



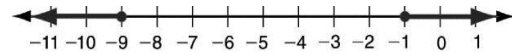
5. $x < -3$ or $x > 3$



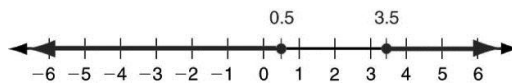
6. $x < 2$ or $x > 10$



7. $x \leq -9$ or $x \geq -1$



8. $x \leq 0.5$ or $x \geq 3.5$



9. $|x - 350| \leq 35$; $315 \leq x \leq 385$

10. $|x - 88| \leq 7.5$; $80.5 \leq x \leq 95.5$