OLSEN – ADVANCED ALGEBRA UNIT 1 ACTIVITY 4 HOMEWORK

Name _____ Period _____

LESSON 4-1 HW: page 53, "LESSON 4-1 PRACTICE" problems 14 – 16 and page 59, " ACTIVITY 4 PRACTICE" problems 5-17.

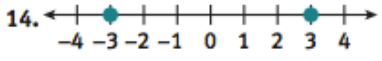
14.	15.	16.

5.	6.
7.	8.
9.	10.

11.	12. **(TRY…BUT OK IF YOU DON'T GET THIS ONE)**
13.	14.
15. **(TRY…BUT OK IF YOU DON'T GET THIS ONE)**	16. **(TRY…BUT OK IF YOU DON'T GET THIS ONE)**
17.	**ANSWER KEY:**

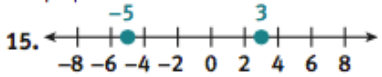
LESSON 4-1 PRACTICE

14.



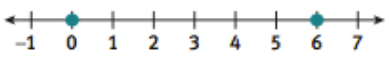
$|x| = 3$

15.



$|x - (-1)| = 4$ or $|x + 1| = 4$

16.



$|x - 3| = 3$

5. $x = -7, x = 7$
6. no solution
7. $x = -7, x = 3$
8. $x = -4, x = 6$
9. $x = -10, x = 10$
10. $x = -2, x = 8$
11. $x = 1.5, x = 3$
12. $x = -3.5, x = -0.5$
13. $x = -2, x = 5$
14. $x = 0, x = 14$
15. $x = -2, x = 6$
16. $x = -6, x = -4$
17. $x = -8, x = 13$

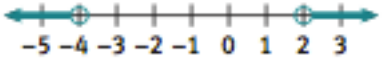
LESSON 4-2 HW: page 59-60, "ACTIVITY 4 PRACTICE" problems 18 – 28 and 30-40.

18.	19.
20.	21.
22.	23.
24.	25.
26.	27.
28.	30.

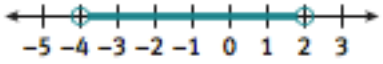
31.	32.
33.	34.
35.	36.

37.	38.
39.	40.

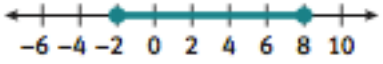
ANSWER KEY:

18. 

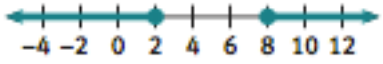
$|x-(-1)|>3$

19. 

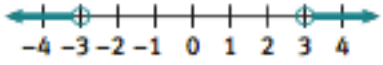
$|x-(-1)|<3$

20. 

$|x-3|\leq 5$

21. 

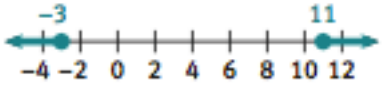
$|x-5|\geq 3$

22. 

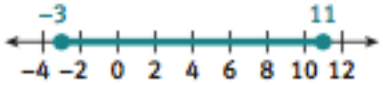
$x<-3$ or $x>3$

23. 

$-3<x<3$

24. 

$x\leq -3$ or $x\geq 11$

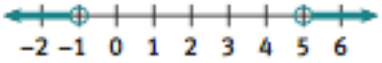
25. 

$-3\leq x\leq 11$

26. D

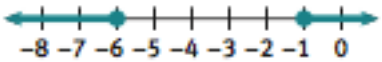
27. $|x-7|<-2$ has no solutions because an absolute value can never be less than a negative number, so no value of x will make this inequality true. $|x|=0$ has one solution ($x=0$) because 0 is the only number with absolute value 0. $|x+1|>-5$ has infinitely many solutions because all absolute values are nonnegative, so they are always greater than a negative number. All values of x will make this inequality true.

30. $x<-1$ or $x>5$

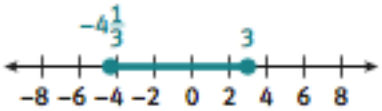


31. $3<x<7$

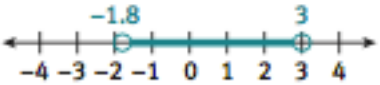
32. $x\leq -6$ or $x\geq -1$



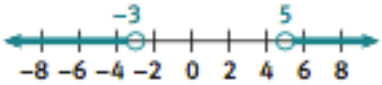
33. $-4\frac{1}{3}\leq x\leq 3$



34. $-1.8<x<3$

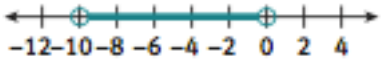


35. $x<-3$ or $x>5$

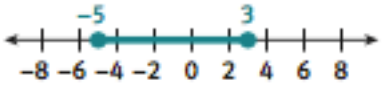


36. no solution

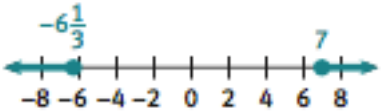
37. $-10<x<0$



38. $-5\leq x\leq 3$



39. $x\leq -6\frac{1}{3}$ or $x\geq 7$



40. $x\leq \frac{1}{3}$ or $x\geq 2\frac{1}{3}$