Name _____ Date _____ Class _____

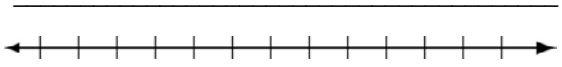
LESSON 2-6

Practice C

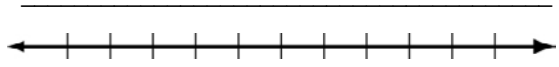
Solving Compound Inequalities

Solve each compound inequality and graph the solutions.

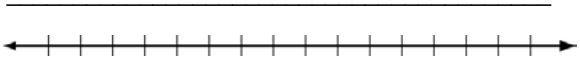
1. $-1 < 4x - 3 < 5$



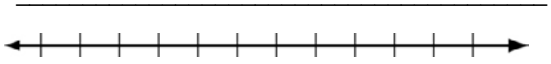
2. $3a - 5 \leq -2$ OR $3a - 5 \geq 13$



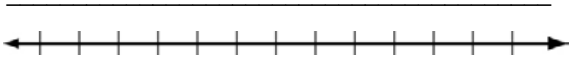
3. $-y - 2 < 6$ OR $4y + 8 \leq 20$



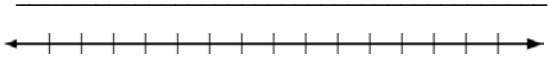
4. $3 \leq -2x + 1 \leq 9$



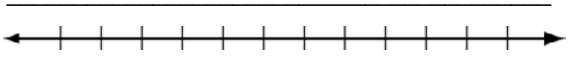
5. $-5k < -10$ OR $3k > -9$



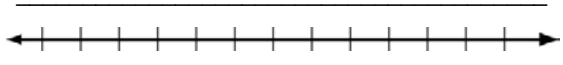
6. $\frac{1}{2}z + 3 < -4$ OR $\frac{2}{3}z - 1 \geq \frac{1}{5}$



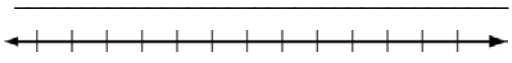
7. $-2 \leq \frac{n+2}{3} \leq 4$



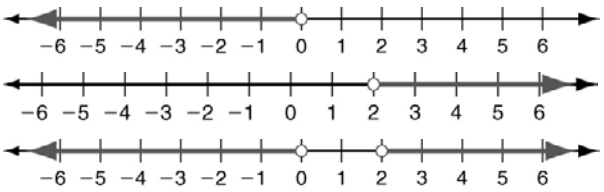
8. $p + 4 > 6$ AND $3p \leq -18$



9. The United States Postal Service charges a "nonmachinable surcharge" for first-class mail if the length of the envelope (parallel to the address) divided by the height of the envelope is less than 1.3 or more than 2.5. Charlene has an envelope with a height of 3.5 inches. Write a compound inequality to show the lengths in inches for which Charlene will have to pay the surcharge.
   Graph the solutions.



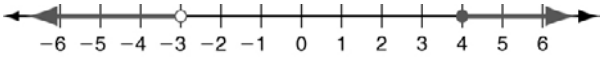
2.



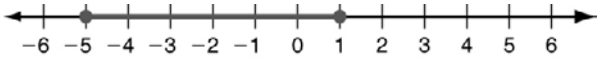
3. $x \le -1$ OR $x \ge 5$

4. $x > -4$ AND $x \le -1$

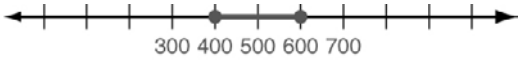
5. 5; 5; 5; 5; –3; 4



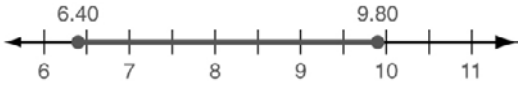
6. 1; 1; 1; 1; –10; 2; 2; 2; 2; 2; –5; 1



7. $400 \le m \le 600$

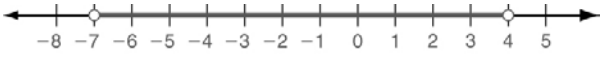


8. $6.40 \le r \le 9.80$

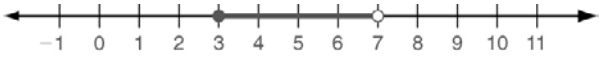


Practice B

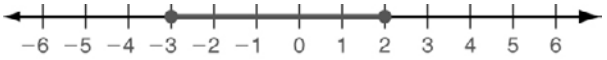
1. $-2 < x < 4$
2. $x < -3$ OR $x \ge 3$
3. $x \le -15$ OR $x \ge -8$
4. $0 \le x < 20$
5. $-7 < x < 4$



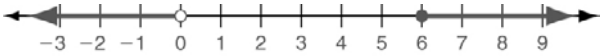
6. $3 \le n < 7$



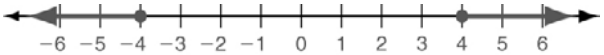
7. $-3 \le b \le 2$



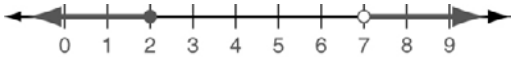
8. $x < 0$ OR $x \ge 6$



9. $k \le -4$ OR $k \ge 4$

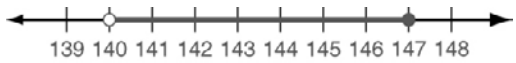


10. $s \le 2$ OR $s > 7$



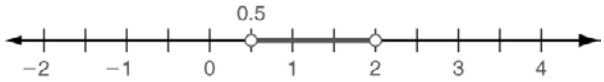
11. $20 \le h \le 20{,}000$

12. $140 < w \le 147$

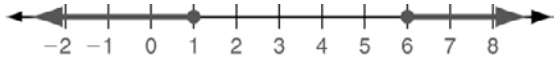


Practice C

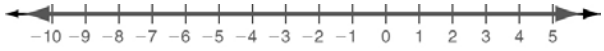
1. $0.5 < x < 2$



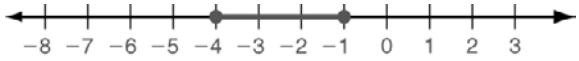
2. $a \le 1$ OR $a \ge 6$



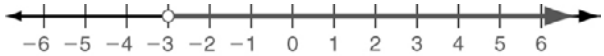
3. $y > -8$ OR $y \le 3$; all real numbers



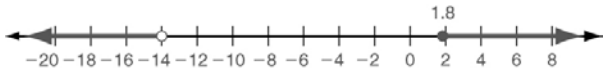
4. $-4 \le x \le -1$



5. $k > -3$

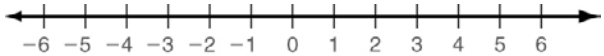


6. $z < -14$ OR $z \ge 1.8$



7. $-8 \le n \le 10$

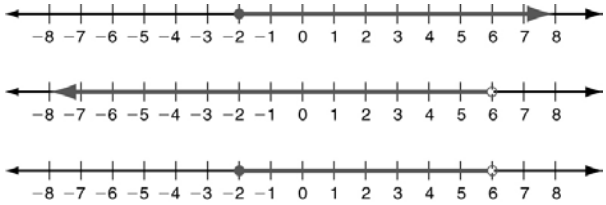
8. $p > 2$ AND $p \le -6$; no solutions



9. $0 < \ell < 4.55$ OR $\ell > 8.75$

Review for Mastery

1. $-3 < x - 4 \quad x - 4 \le 10$
2. $8 \le m + 4 \quad m + 4 \le 15$
3.



4. $-4 < k < 1$