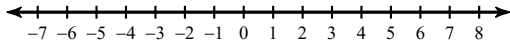


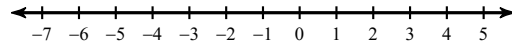
## Worksheet 1.7 Compound Inequalities

Solve each compound inequality and graph its solution. Write answers in interval notation.

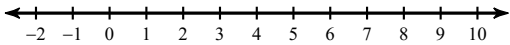
1)  $-4m \geq 8$  or  $-6m \leq -24$



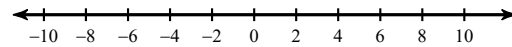
2)  $2 \leq x + 3 < 4$



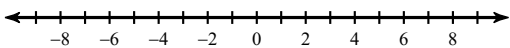
3)  $p + 6 < 9$  and  $4p \geq 0$



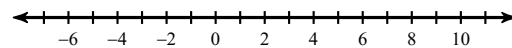
4)  $\frac{x}{2} > 3$  or  $6x \leq -30$



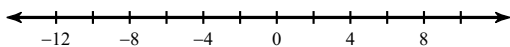
5)  $9 - 9x > -45$  and  $-x + 3 < 10$



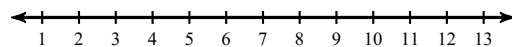
6)  $12 + 8m > 68$  or  $-8m - 2 \geq 14$



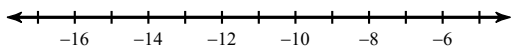
7)  $6a - 8 > 28$  or  $2 + 4a \leq -34$



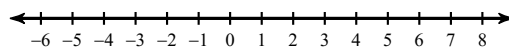
8)  $6 > 12 - 2r > -4$



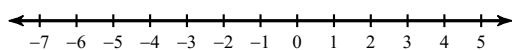
9)  $2n - 3 \geq -19$  and  $11n - 7 \leq -73$



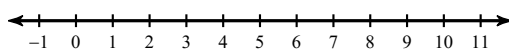
10)  $9 - 12n \leq -51$  or  $12n + 2 \leq -22$



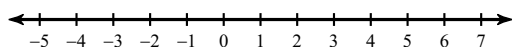
11)  $-2n + 10 > 14$  and  $10n - 10 \leq 40$



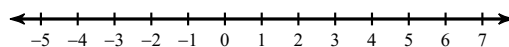
12)  $4 - 6x \leq 13 - 7x < -11 - x$



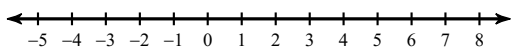
13)  $-4 + 6p > 7p - 3$  or  $12p + 11 < 20p - 13$



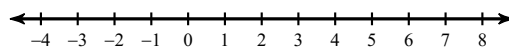
14)  $2 - 2m \geq 4m + 2$  or  $17 + 9m \leq 19m - 13$



15)  $b - 10 \leq 10b + 8$  and  $7 + 4b > -17 + 8b$



16)  $8n - 9 < 6n - 1 < 5n + 3$



**Write and solve a compound inequality.**

17) Nathan will be working between 19 and 23 hours this week, which is 3 more than twice the number of hours he worked last week. How many hours did Nathan work last week.

18) Alexis scored 76 on her midterm exam. For her to get a B in the class, her midterm and final must average between 80 and 89, inclusive. What possible scores on the final exam would give Alex a B for the course?