

Name: \_\_\_\_\_

1. Use interval notation to express the solution set and graph the set on a number line if the solution set is not empty.

(a)  $5x + 3 > 23$

(c)  $6(x + 1) + 4 \geq 5x + 17$

(b)  $2x + 4 > 10$

(d)  $\frac{x}{3} - \frac{1}{12} \leq \frac{x}{4} + 1$

2. Solve the compound inequalities and give your answer in interval notation:

(a)  $-3 \leq x - 2 \leq 5$

(c)  $7x - 9 > -23$  and  $5x + 8 < 23$

(b)  $5 < x + 5 < 8$

(d)  $-5x + 6 \geq 21$  or  $-7x - 5 < 9$