MATH 123 **Linear Inequalities**

Solve the inequality and graph the solution on a number line.

1. $2x+3>0$

2. $2\geq 5x$

3. $3+7x\geq 8$

4. $2-9x\leq 11$

5. $13-2(x+4)>6$

6. $3x\geq 12(x-3)-10$

7. $\frac{7}{5}x-3>\frac{2}{5}x$

8. $8x-(3+2x)\leq 3x+1$

9. $7-2(x+4)>2-x$

10. $3+4(2-3x)<3-4x$

11. $9+2(4-5x)+x\geq 2-3\left(6+\frac{2}{3}x\right)$

12. $4(2x-3)<12x$

13. $15x-3(x+6)>7$

14. $6(x-2)-x\leq 9x+53$

15. $7-(x+4)-2x<9$

16. $\frac{1}{2}x-\frac{3}{4}\left(x-\frac{1}{2}\right)\geq\frac{1}{8}$

17. $\frac{3x-5}{7}+\frac{8-2x}{3}>2$

18. $\frac{3}{2}x+7\geq\frac{2}{3}$

19. $-\frac{3}{4}(2-x)+\frac{2}{3}x<3$

20. $2z-3(2-z)+7\geq 2-z$

21. $3-\frac{2}{5}y>3+\frac{1}{4}\left(3-\frac{1}{5}y\right)$

22. $2z+5-\frac{3}{5}z<3(2-z)$

23. $5\left[3-\frac{1}{2}(2z-4)+z\right]\geq 3-2\left(\frac{1}{3}z+4\right)-z$