

Section 1.8 Inequalities Worksheet**Math 130**

Solve the inequalities, express each solution in interval notation and graph on a number line.

1. $3x+1 \leq 4x+4$

2. $-2 < 2x+1 < 2$

3. $x^2 - 2x \geq 99$

4. $(7-x)(x+3) \geq 0$

5. $(x-2)^2(x+5) \leq 0$

6. $\frac{2x-5}{x-2} < 1$

7. $\frac{4}{x+1} - \frac{5}{x+2} \leq 0$

8. $|4 - 2x| < 3$

9. $|3x + 1| \geq 4$

10. Find the domain of the function $f(x) = \sqrt{2x^2 + 5x - 12}$