

## Algebra 3 Assignment # 2

Solve for x in the following equations:

(1)  $|3x+2|+|2x-1|=4$

(2)  $\left|\frac{x+3}{x-3}\right|=7$

(3)  $|4x+1|-|5x-2|=3$

(4)  $|2x-1|-|x+2|\leq 2$

(5)  $\left|\frac{x+2}{x-1}\right|>3$

(6)  $\left|\frac{1}{x}+4\right|\geq 5$

(7)  $|x+3|-|x-1|+|2x-5|=7$

**Answers:**

1.  $x=\frac{3}{5}$  or  $x=-1$

2.  $x=4$  or  $2\frac{1}{4}$

3. NS

4.  $-1\leq x\leq 5$

5.  $\frac{1}{4}\leq x\leq 5/2$   $x\neq 1$

6.  $-\frac{1}{9}\leq x\leq 1$   $x\neq 0$

7.  $-3\leq x\leq 1$  and  $x=4$