Chapter 9 Extra Practice

1. Solve the following Linear Inequalities:
a) $3x+5\leq 5x-1$

b) $3-2\left(x-4\right)>4x+5$

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

d) $\frac{3x+1}{2}\leq \frac{5(2x-3)}{3}$

e) $4\left(x-3\right)<3(2x+1)$

f) $5(2x+1)\geq \frac{2}{3}(x+4)$
2. Solve the following Quadratic Inequalities:
a) $x^{2}+x-6\geq 0$

b) $2x^{2}-5x-3<0$

c) $x^{2}-6x+9\leq 0$

d) $6x^{2}+x\geq 1$

e) $x^{2}-2x+4\geq 0$

f) $2x^{2}+6x+4\leq 0$
3. Solve the following Inequalities:
a) $\frac{x^{2}-x-6}{x+1}\geq 0$

b) $\frac{x^{2}-2x-3}{x^{2}-2x-8}\leq 0$

c) $\frac{x-5}{x^{2}-2x-3}>0$

d) $\frac{x^{2}-3x}{x^{2}+x}\leq 0$

e) $\frac{x^{2}-9}{x+3}<0$
4. Test to see if the given values are solutions for the given inequalities:

a) $x=0$ for $\frac{4x+3}{x+1}>5x+3$ b) $x=-2$ for $2x^{3}-5x^{2}+1>x+4$

c) $x=-3$ for $-x^{2}+5x+24\geq 0$ d) $x=-1$ for $-3x^{3}-4x^{2}+5x>1$