W6 – 2.5 – Solving Inequalities
MHF4U

1) Solve each linear inequality

a) $x + 3 \leq 5$

b) $7x < 4 + 3x$

2) Solve each inequality by graphing

a) $(x + 3)(x - 2) > 0$

b) $(x + 2)(3 - x)(x + 1) < 0$

3) Solve each of the following polynomial inequalities

a) $x^2 - 7x + 10 \geq 0$

b) $x^3 + 6x^2 - 16x > 0$

c) $-x^2 + 36 \geq 0$

d) $x^4 - 26x^2 + 25 > 0$

e) $x^3 - 3x^2 \geq 25x - 75$

f) $-x^3 + 28x + 48 \geq 0$

g) $x^3 - 2x^2 - 5x + 6 < 0$

h) $5x^3 - 12x^2 - 11x + 6 \leq 0$

4) The price, p, in dollars, of a stock t years after 1999 can be modelled by the function $p(t) = 0.5t^3 - 5.5t^2 + 14t$. When will the stock be more than \$90? You may use technology to help you determine the solution.