



AAU - Business Mathematics I

Problem set #3, Due April 10, 2010

1. Solve the following inequalities:

(a) $x^2 + 4x + 10 \leq 0$

(b) $-x^2 - 4x - 10 < 0$

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

(d) $\frac{2x}{x-10} \leq 0$

2. Solve the following equations and inequalities with absolute value:

(a) $|x - 4| = 2$

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

(c) $|x - 3| < 1$

(d) $|x + 2| \geq 1$

4. Solve the following exponential and logarithmic equations:

(a) $7^{3x+1} = 49^x$

(b) $2^{x^2-7x+10} = 2^{2x-10}$

(c) $\log_2 1 = \log_2 3x - 4$