

1. TEST 01 (A) - 14.3. 2012

Solve the following problems in the real domain.

1.  $|x + 2| - |x - 1| > 2$   

$$[(\frac{1}{2}, \infty)]$$
2.  $|x + 2| - |x - 2| > |x|$   

$$(0, 4)$$
3.  $|x + |2x|| - |x + 2| > x$   

$$(-\infty, -\frac{2}{3}) \cup (2, \infty)$$
4.  $\frac{2x^2 + 5x + 6}{x^2 + 9x} \geq 2$   

$$(-\infty, -9) \cup (0, \frac{6}{13}]$$
5.  $\frac{x - 8}{x - 2} \geq x$   

$$(-\infty, 2)$$
6.  $\frac{|2x + 1|}{x + 4} \geq x$   

$$(-\infty, -3 - 2\sqrt{2}] \cup (-4, \sqrt{2} - 1]$$

Test 01 (B) - 14.3. 2012

Solve the following problems in the real domain.

1.  $|x - 1| - |x + 1| < 5$   

$$\mathbf{R}$$
2.  $|x + 2| - x + 2 > |x + 5|$   

$$(-\infty, -1)$$
3.  $|x + |2x - 1|| - |x + 1| > x$   

$$(-\infty, 0) \cup (2, \infty)$$
4.  $\frac{2x^2 + 5x + 6}{x^2 + 8x} \geq 2$   

$$(-\infty, -8) \cup (0, \frac{6}{11}]$$
5.  $\frac{x + 2}{x + 3} \geq x$   

$$(-\infty, -3) \cup [-1 - \sqrt{3}, -1 + \sqrt{3}]$$
6.  $\frac{|2x + 4|}{x - 2} \geq x$   

$$(-\infty, 2 - 2\sqrt{2}) \cup (2, 2 + 2\sqrt{2}]$$

## Test 01 (C) - 14.3.2012

Solve the following problems in the real domain.

1.

$$|x + 1| + |x + 2| < 5$$

$$(-4, 1)$$

2.

$$|x + 2| + x > |x + 5|$$

$$(3, \infty)$$

3.

$$|x + |2x + 1|| - |x + 1| > x$$

$$(-\infty, -\frac{2}{5}) \cup (0, \infty)$$

4.

$$\frac{2x^2 + 5x + 6}{x^2 + 8x} \geq 1$$

$$(-\infty, -8) \cup (0, \infty)$$

5.

$$\frac{x + 4}{x + 3} \geq x$$

$$(-\infty, -1 - \sqrt{5}] \cup (-3, \sqrt{5} - 1)$$

6.

$$\frac{|2x + 5|}{x - 2} \geq x$$

$$(-\infty, -1] \cup (2, 5]$$