

1)  $|2x - 1| = 5$   
 $\{5 > 0\}$   
 $\{2x - 1 = 5\}$   
 $\{2x - 1 = -5\}$

3)  $|-x^2 - 2x + 1| = 1$   
 $\{1 > 0\}$   
 $\{-x^2 - 2x + 1 = 1\}$   
 $\{-x^2 - 2x + 1 = -1\}$

5)  $|x + 2| = 2(3 - x)$   
 $|x + 2| = 6 - 2x$   
 $\{6 - 2x > 0\}$   
 $\{|x + 2 = 6 - 2x\}$   
 $\{|x + 2 = -6 + 2x\}$

7)  $|1 + x - x^2| = 2x^2 + x - 4$   
 $\{2x^2 + x - 4 > 0\}$   
 $\{1 + x - x^2 = 2x^2 + x - 4\}$   
 $\{1 + x - x^2 = -2x^2 - x + 4\}$

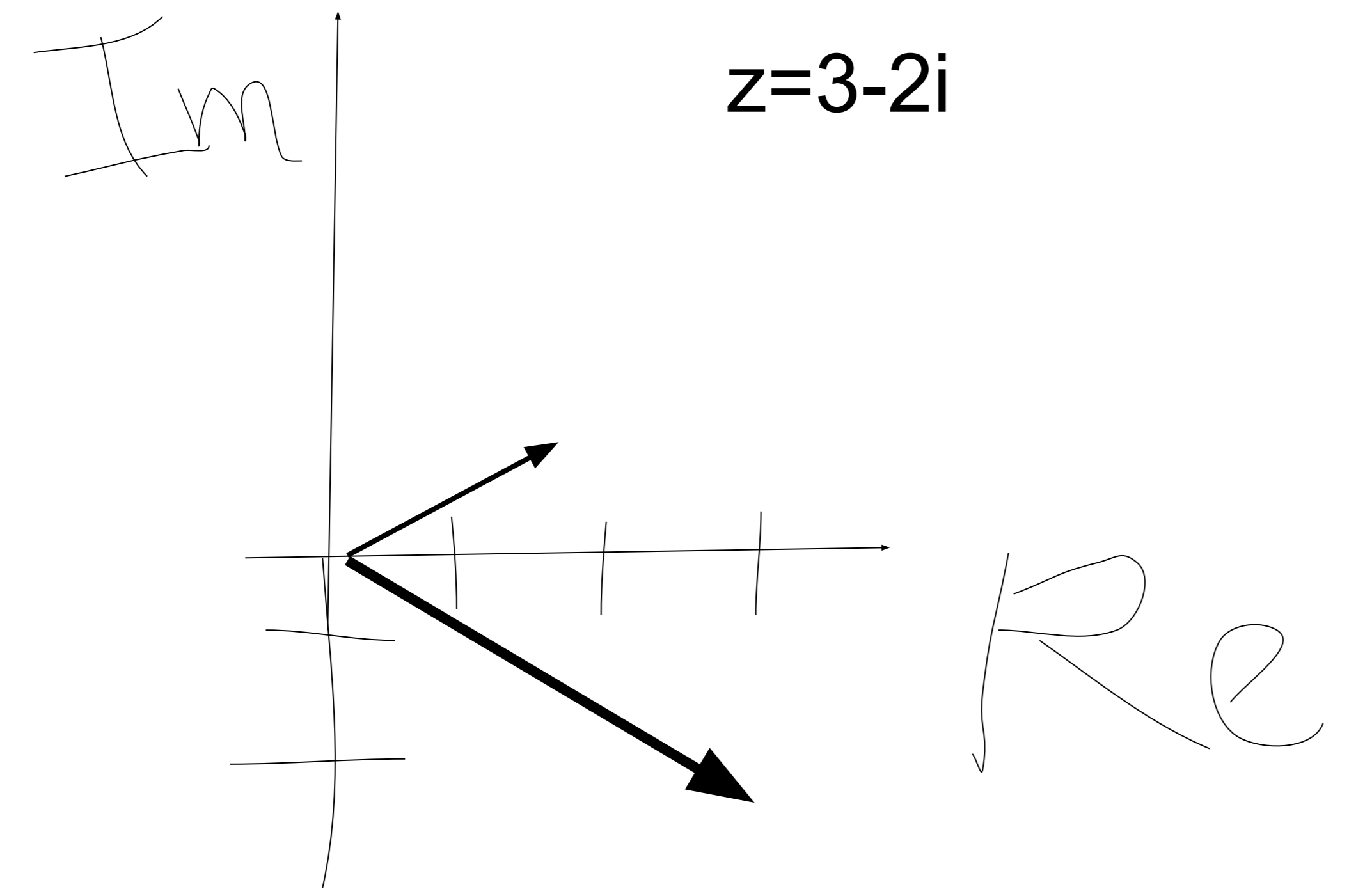
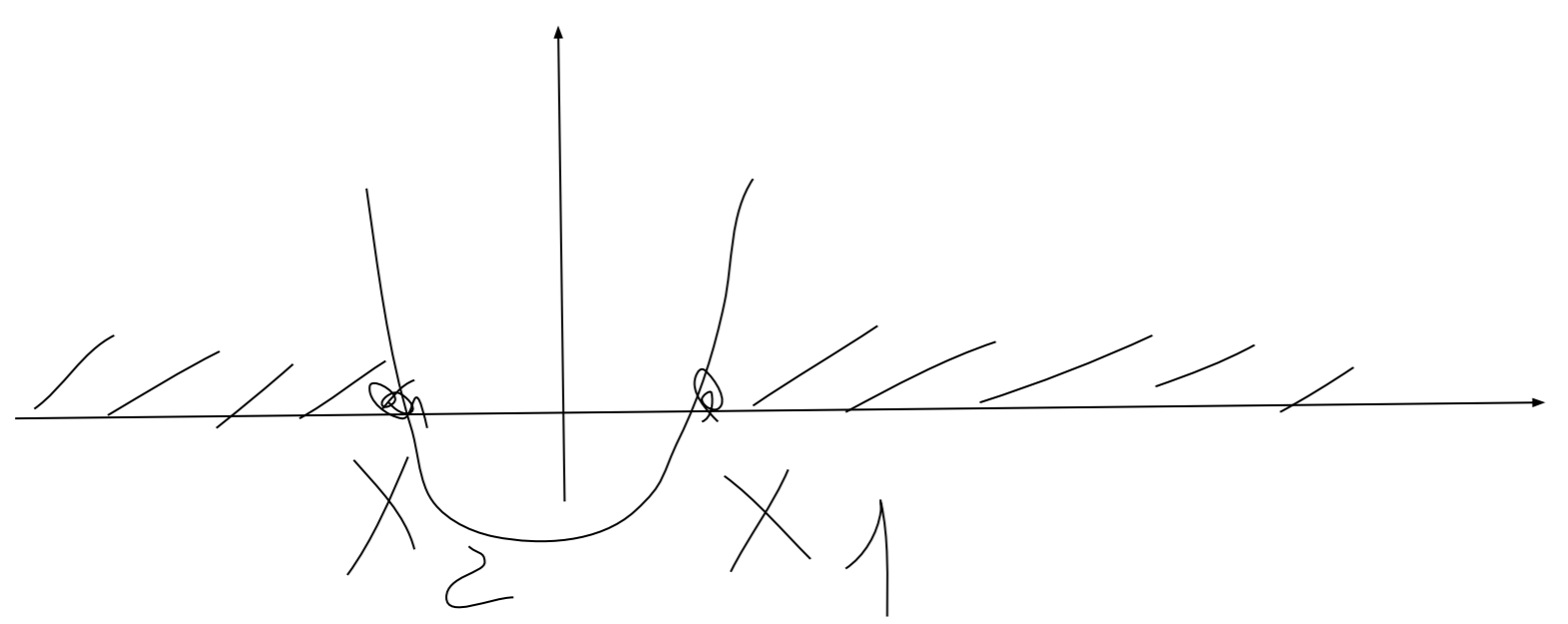
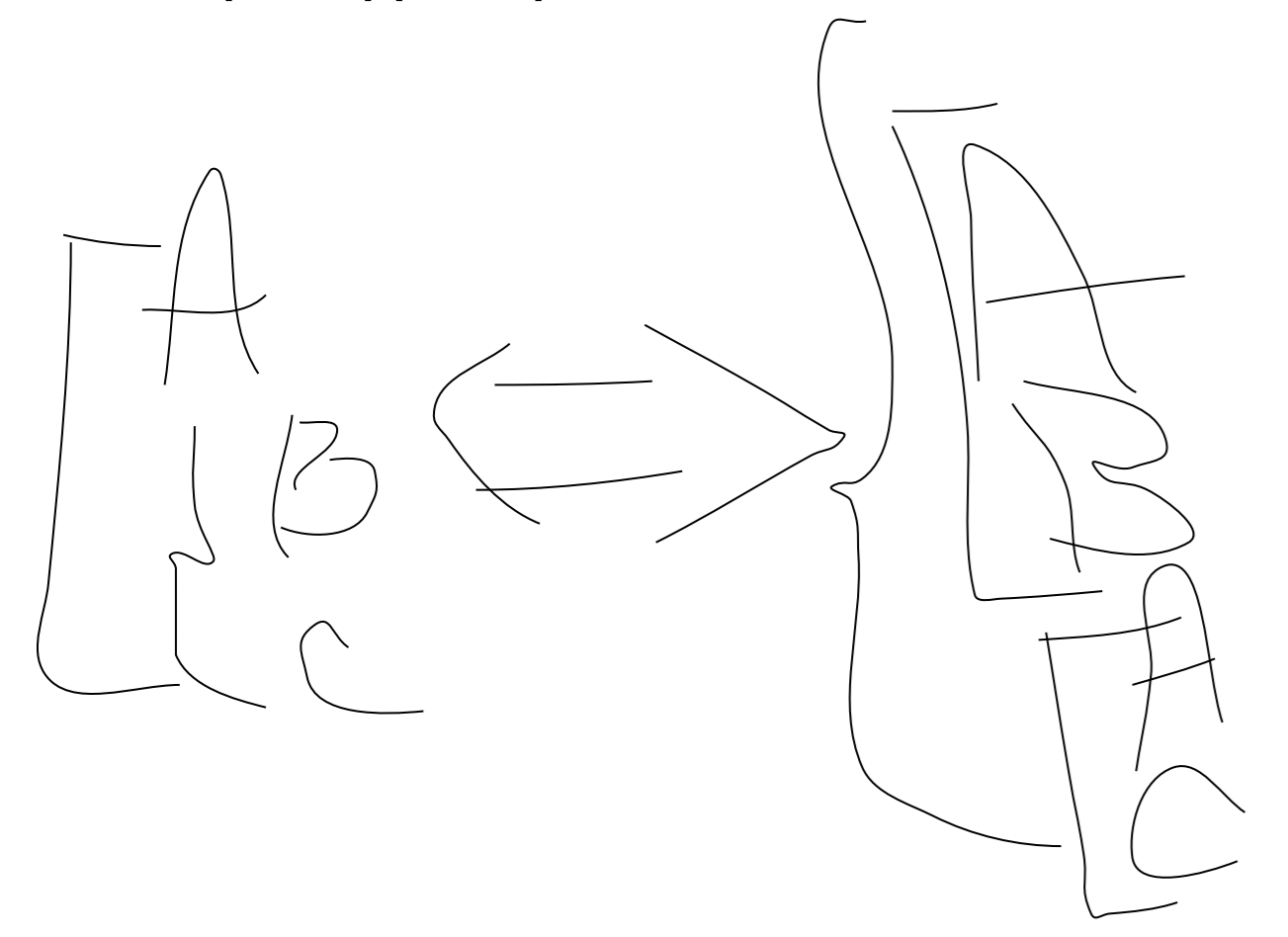
9)  $|x - 2| = 2 - x$   
 $\{2 - x > 0\}$   
 $\{|x - 2 = 2 - x\}$   
 $\{|x - 2 = -2 + x\}$

6)  $|x^2 + 4x + 2| = (5x + 16) / 3$   
 $\{(5x + 16) / 3 > 0\}$   
 $\{x^2 + 4x + 2 = (5x + 16) / 3\}$   
 $\{x^2 + 4x + 2 = -(5x + 16) / 3\}$

$x^2 - 5x + 6 = 0$   
 $(x - 2)(x - 3) = 0$   
 $\begin{cases} x - 2 = 0 \\ x - 3 = 0 \end{cases}$

**A\*(B+C)=A\*B+A\*C**  
 \*=&&  
 +=||  
 A, B, C - логические выражения (например A (x>0))

**A+BC=(A+B)(A+C)**



$z = 3 - 2i$

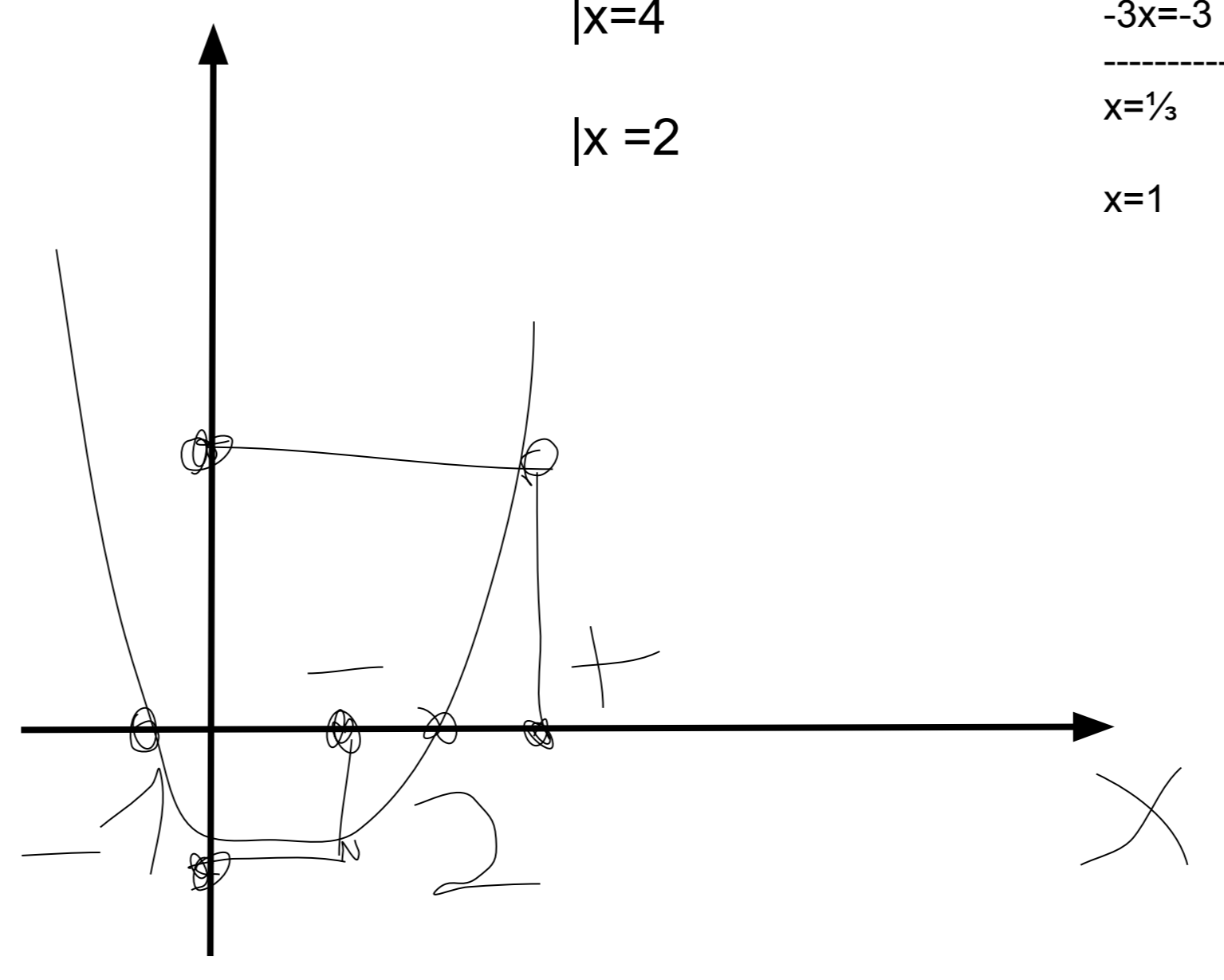
$(-1 + \sqrt{33}) / 4 ? \sqrt{5/3}$   
 $(34 - 2\sqrt{33}) / 16 ? 5/3$   
 $(17 - \sqrt{33}) / 8 ? 5/3$   
 $3(17 - \sqrt{33}) ? 8 * 5$   
 $51 - 3\sqrt{33} ? 40$   
 $-3\sqrt{33} ? -11$   
 $11 ? 3\sqrt{33}$   
 $121 < 9 * 33$

$(-1 - \sqrt{33}) / 4 ? -\sqrt{5/3}$   
 $\sqrt{5/3} ? (1 + \sqrt{33}) / 4$   
 $5/3 ? (1 + 2\sqrt{33} + 33) / 16$   
 $5/3 ? (\sqrt{33} + 17) / 8$   
 $5 * 8 ? 3(\sqrt{33} + 17)$   
 $40 ? 3\sqrt{33} + 51$   
 $-11 ? 3\sqrt{33}$

$|2x + x^2 - 3| = 0$   
 $|x = +\sqrt{5/3}|$

$|x_1 = -3|$   
 $|x_2 = 1|$

Ответ: -3;  $\sqrt{5/3}$



4)  $|2x - 5| = x - 1$   
 $\{x - 1 > 0\}$

$\{|2x - 5 = x - 1\}$   
 $\{|2x - 5 = -x + 1\}$

$x > 1$

$|2x - 5 = x - 1|$

$|2x - 5 = -x + 1|$

$|x = 4|$

$|x = 2|$

2)  $|2 - 3x| = 1$   
 $\{1 > 0\}$

$\{|2 - 3x = 1\}$   
 $\{|2 - 3x = -1\}$

$\{1 > 0\}$   
 $\{2 - 3x = 1\}$

$\{1 > 0\}$   
 $\{2 - 3x = -1\}$

$-3x = -1$

$-3x = -3$

$x = 1/3$

$x = 1$

10)  $|x^2 - x - 2| = x + 2 - x^2$   
 $\{x + 2 - x^2 > 0\}$

$\{|x^2 - x - 2 = x + 2 - x^2\}$   
 $\{|x^2 - x - 2 = -x - 2 + x^2\}$

$|x^2 - x - 2 = 0|$

$|x_1 = 2|$

$|x_2 = -1|$

$|0 = 0|$

$x^2 - x - 2 <= 0$

$x_1 = 2$

$x_2 = -1$

Ответ: [-1; 2]

8)  $|3x^2 + 5x - 4| = 2x - 1$   
 $\{2x - 1 > 0\}$

$\{|3x^2 + 5x - 4 = 2x - 1\}$   
 $\{|3x^2 + 5x - 4 = -2x + 1\}$

$|x^2 + x - 1 = 0|$   
 $D = 5$

$x_1 = (-1 + \sqrt{5}) / 2$   
 $x_2 = (-1 - \sqrt{5}) / 2$

$|3x^2 + 7x - 5 = 0|$   
 $D = 49 + 60 = 109$

$x_1 = (-7 + \sqrt{109}) / 6$   
 $x_2 = (-7 - \sqrt{109}) / 6$

Ответ:  $(-7 + \sqrt{109}) / 6; (-1 + \sqrt{5}) / 2$

$|3x^2 + 7x - 10 = 0|$   
 $D = 49 + 120 = 169$   
 $x_1 = (-7 + 13) / 6 = 10/3$   
 $x_2 = (-7 - 13) / 6 = -10/3$

$|3x^2 + 17x + 22 = 0|$   
 $D = 17^2 - 2 * 22 * 3 = 289 - 264 = 25$   
 $x_1 = (-17 + 5) / 6 = -2$   
 $x_2 = (-17 - 5) / 6 = -22/6 = -11/3$

$5x > -16$   
 $x > -16/5$   
 Ответ: -2; 1