**Приложение 3.**

**14. Решить неравенства с помощью замены функции:**

1. $\frac{\sqrt{x}-\sqrt{2-x}}{3x^{2}-x-4}<0$ ( 1; $\frac{4}{3})$

2.$ \frac{3^{2x-1}-5^{x}}{5^{2x-1}-3^{x}}<0$ ( $\frac{1}{2-log\_{5}3}; \frac{1}{2-log\_{3}5}$ )

3. $\frac{\left|\sqrt{x}-1 \right|-\sqrt{x}}{\left|2x-1\right|-x}>0 [ 0;\frac{1}{4} $)$∪($ $\frac{1}{3};1$)

4.$ \frac{3^{x^{2}}-\left(\frac{1}{\sqrt{3}}\right)^{2-4x}}{\left|2x=3\right|-1}\leq 0$ (-2, -1)$∪\left\{1\right\}$

5.$ \frac{\left|2x^{2}-x-3\right|-x^{2}-2x-1}{ \left|3x^{2=x-2}\right|-x^{2}-2x-1}\leq 0$ {-1; 1}$∪\left(\frac{1}{4};\frac{2}{3}\right]∪(\frac{3}{2};4]$

6.$ \frac{x+\sqrt[3]{x^{3}-16}}{log\_{2}\left(2^{-x}-2\right)+x+1}>0 $ (-2,-1)

7.$ \frac{log\_{2}\left(2x^{2}-13x+20\right)-1}{log\_{3}\left(x+7\right)}\leq 0$ (-7, 6) $∪$[2; 2,5)$∪$ (4; 4,5]

8.$ \frac{log\_{3}x}{log\_{3}\left(3x+2\right)}<1$ (0;$\infty )$

9.$ \frac{2x^{2}-7x=3}{ log\_{2}\left|x-1\right|}\geq 0 $ (-$\infty ;0)∪\left[0,5;1\right)∪\left(1;2\right)∪[3; +\infty )$

10.$\frac{log\_{3}\left(10x+3\right)log\_{3}\left(3x+10\right)}{\left(log\_{3}10x\right)log\_{3}x}\geq 0$ (0; 0,1)$∪(1; +\infty )$