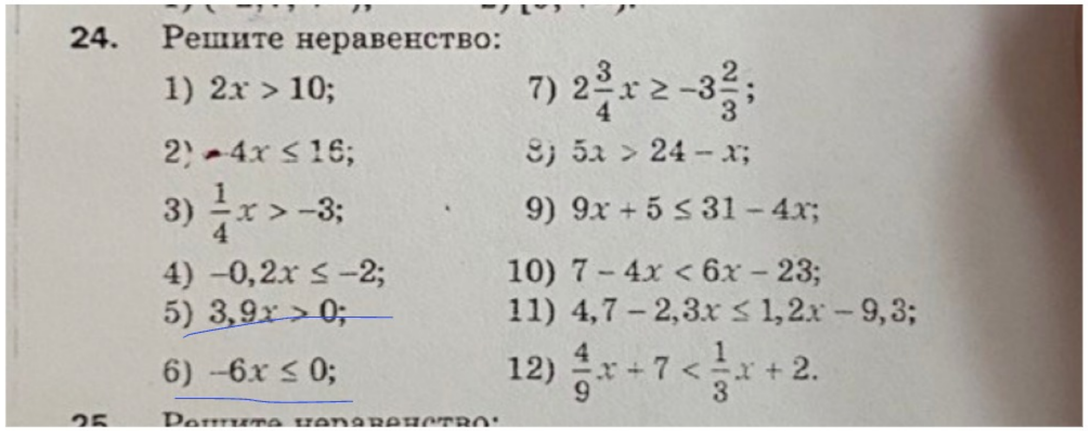
18.10.2023 (среда)



24. Решите неравенство:

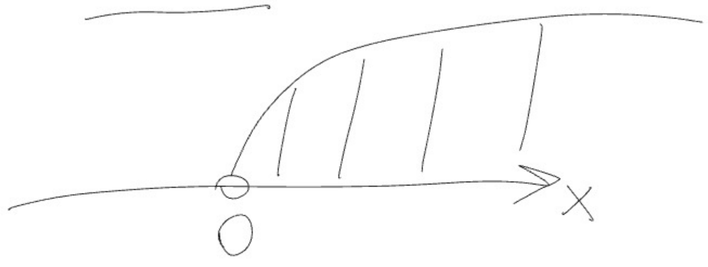
1) $2x > 10$;
2) $-4x \le 16$;
3) $\frac{1}{4}x > -3$;
4) $-0,2x \le -2$;
5) $3,9x > 0$;
6) $-6x \le 0$;
7) $2\frac{3}{4}x \ge -3\frac{2}{3}$;
8) $5x > 24 - x$;
9) $9x + 5 \le 31 - 4x$;
10) $7 - 4x < 6x - 23$;
11) $4,7 - 2,3x \le 1,2x - 9,3$;
12) $\frac{4}{9}x + 7 < \frac{1}{3}x + 2$.

25. Решите неравенство:

$3,9x > 0$

$x > \frac{0}{3,9}$

$x > 0$



$x \in (0; +\infty)$

$-6x \le 0$

$x \ge 0$ $[0; +\infty)$

25. Решите неравенство:

1) $4(x-3) > x+6$;

2) $0{,}3(8-3y) \le 3{,}2-0{,}8(y-7)$;

3) $\frac{5}{6}\left(\frac{1}{3}x-\frac{1}{5}\right) \ge 3x+3\frac{1}{3}$;

4) $2x(2x+1)-5(x^2-3x) < x(2-x)+3$;

5) $\frac{x-5}{4}-\frac{x+1}{3} > 2$;

6) $\frac{x+4}{3}-\frac{x+2}{6} \le 4$;

7) $\frac{5x-2}{4}-\frac{3-x}{5} > \frac{1-x}{10}$;

8) $(x+4)(x-2)-(x+5)(x+3) \le -8x$;

9) $(3x+1)^2-(x+2)(4x-1) > 5(x-1)^2+7x$;

10) $3x(5+12x)-(6x-1)(6x+1) \ge 10x$.

3) $\frac{5}{6}\left(\frac{1}{3}x-\frac{1}{5}\right) \ge 3x+3\frac{1}{3}$

$\frac{5}{18}x-\frac{1}{6} \ge 3x+\frac{10}{3}$

$\frac{5}{18}x-\frac{3}{1}x \ge \frac{1}{6}+\frac{10}{3}$ | ·12

$-\frac{49}{18}x \ge \frac{21}{6}$

$x \le -\frac{9}{7}$ $(-\infty; -\frac{9}{7})$

Доп. расчёты:

$\frac{5}{18}-\frac{54}{18}=-\frac{49}{18}$

$\frac{21 \cdot 18^3}{6 \cdot 49_7} = \frac{9}{7}$

№25

1) $4(x-3)>x+6$

$4x-12>x+6$

$3x>18$

$x>6$ $(6;+\infty)$

2) $0{,}3(8-3y) \le 3{,}2-0{,}8(y-7)$

$2{,}4-0{,}9y \le 3{,}2-0{,}8y+5{,}6$

$0{,}8y-0{,}9y \le -2{,}4+3{,}2+5{,}6$

$-0{,}1y \le 6{,}4$

$0{,}1y \ge -6{,}4$

$y \ge -64$ $[-64;+\infty)$

4) $2x(2x+1)-5(x^2-3x)<x(2-x)+3$

$4x^2+2x-5x^2+15x<2x-x^2+3$

$4x^2+2x-5x^2+15x-2x+x^2<3$

$15x<3$

$x<0{,}2$ $(-\infty; 0{,}2)$

5) $\frac{x-5}{4}-\frac{x+1}{3}>2$ | ·12

$\frac{3x-15}{12}-\frac{4x+4}{12}>2$

$\frac{3x-15-(4x+4)}{12}>2$

$\frac{3x-15-4x-4}{12}>2$

$\frac{-x-19}{12}>2$ | ·12

$-x-19>24$

$-x>43$

$x<-43$ $(-\infty;-43)$

$12 \cdot \frac{-x-19}{12} > 2 \cdot 12$

g) $(3x+7)^2-(x+2)(7x-1)>5(x-1)^2+7x$

$>5(x^2-2x+1)+7x$

$>5x^2-10x+5+7x$

$>5x^2-3x+5$