Домашнее задание

▶ 1.
$$(x^2-4)\sqrt{x+1}=0$$

▶ 2.
$$\sqrt{2x-6} + \sqrt{x+4} = 5$$

▶ 3.
$$\sqrt{2x+5} - \sqrt{3x-5} = 2$$

▶ 4 [2].
$$\sqrt{x+1} - 1 = \sqrt{x - \sqrt{x+8}}$$

▶ 5.
$$\sqrt{2x^2+8x+7}-x=2$$

▶ 5.
$$\sqrt{2x^2 + 8x + 7} - x = 2$$

▶ 6. $x + \sqrt{2x^2 - 7x + 5} = 1$

▶ 7 [2].
$$\sqrt{x+2} - \sqrt{x-1} = \sqrt{2x-3}$$

▶ 8.
$$\sqrt{x^2-3x+2}-3-x>0$$

▶ 9.
$$x+4 \le \sqrt{x+46}$$

▶ 10.
$$x-3 < \sqrt{x+27}$$

▶ 11.
$$\sqrt{x^2 + 2x - 3} < x$$

▶ 12.
$$\sqrt{x^2-x-2} \leqslant x-1$$

▶ 13.
$$x+4 < \sqrt{-x^2-8x-12}$$

▶ 11.
$$\sqrt{x^2 + 2x - 3} < x$$

▶ 12. $\sqrt{x^2 - x - 2} \le x - 1$

▶ 13. $x + 4 < \sqrt{-x^2 - 8x - 12}$

▶ 14. $\frac{3 - x}{\sqrt{15 - x}} < 1$

▶ 15.
$$\frac{\sqrt{x+5}}{1-x} < 1$$

▶ 16.
$$\frac{\sqrt{24-2x-x^2}}{x}$$
 < 1

▶ 17.
$$\sqrt{1-3x} - \sqrt{5+x} > 1$$

▶ 15.
$$\frac{\sqrt{x+5}}{1-x} < 1$$

▶ 16. $\frac{\sqrt{24-2x-x^2}}{x} < 1$

▶ 17. $\sqrt{1-3x} - \sqrt{5+x} > 1$

▶ 18 [2]. $\frac{\sqrt{6+x-x^2}}{2x+5} \ge \frac{\sqrt{6+x-x^2}}{x+4}$

▶ 19. $(x+1)\sqrt{x^2+x-x^2} = 2x+2$

▶ 19.
$$(x+1)\sqrt{x^2+x-2}=2x+2$$

$$ightharpoonup$$
 20. $x\sqrt{36x+1261}=18x^2-17x$

▶ 21.
$$\sqrt{(x-4)(5x+41)}$$
 < 2(2x - 7)

▶ 21.
$$\sqrt{(x-4)(5x+41)} < 2(2x-7)$$
▶ 22. $\frac{\sqrt{51-2x-x^2}}{1-x} < 1$

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 23. $\sqrt{x} \leqslant x-1$

▶ 24.
$$(x+2)\sqrt{x^2+7x+6} \geqslant 0$$

▶ 25.
$$\sqrt{2x^2+x} > 1+2x$$

▶ 26.
$$\sqrt{4-6x-x^2}=x+4$$

▶ 27.
$$(x^2 - 18x + 77)\sqrt{10 - x} \ge 0$$

▶ 27.
$$(x^2 - 18x + 77)\sqrt{10 - x} \ge 0$$
▶ 28. $\frac{\sqrt{x^2 + x - 6} + 3x + 13}{x + 5} > 1$
▶ 29. $x + \sqrt{x^2 + x - 6} > -1$

▶ 29.
$$x + \sqrt{x^2 + x - 6} > -1$$

▶ 30.
$$2x-17 < \sqrt{81-x^2}$$