

$$\arcsin(2x\sqrt{1-x^2}) = \arccos(2x^2-1)$$

$$\arcsin(2x\sqrt{1-x^2}) \in [0; \pi/2]$$

$$0 \leq 2x\sqrt{1-x^2} \leq 1$$

$$0 \leq x\sqrt{1-x^2} \leq 1/2$$

$$0 \leq x\sqrt{1-x^2}$$

$$0 \leq x\sqrt{1-x}(1+x)$$

$$x \in [0; 1] \setminus \{-1\}$$

$$x\sqrt{1-x^2} \leq 1/2 \quad |^2$$

$$x^2(1-x^2) \leq 1/4$$

$$2x^2 = t$$

$$x^2(1-x^2) \leq 1/4$$

$$2t - t^2 - 1 \leq 0$$

$$t^2 - 2t + 1 \geq 0$$

$$(t-1)^2 \geq 0$$

всегда верно

$$\arccos(2x^2-1) \in [0; \pi/2]$$

$$0 \leq 2x^2-1 \leq 1$$

$$1/2 \leq x^2 \leq 1$$

$$x^2 \leq 1$$

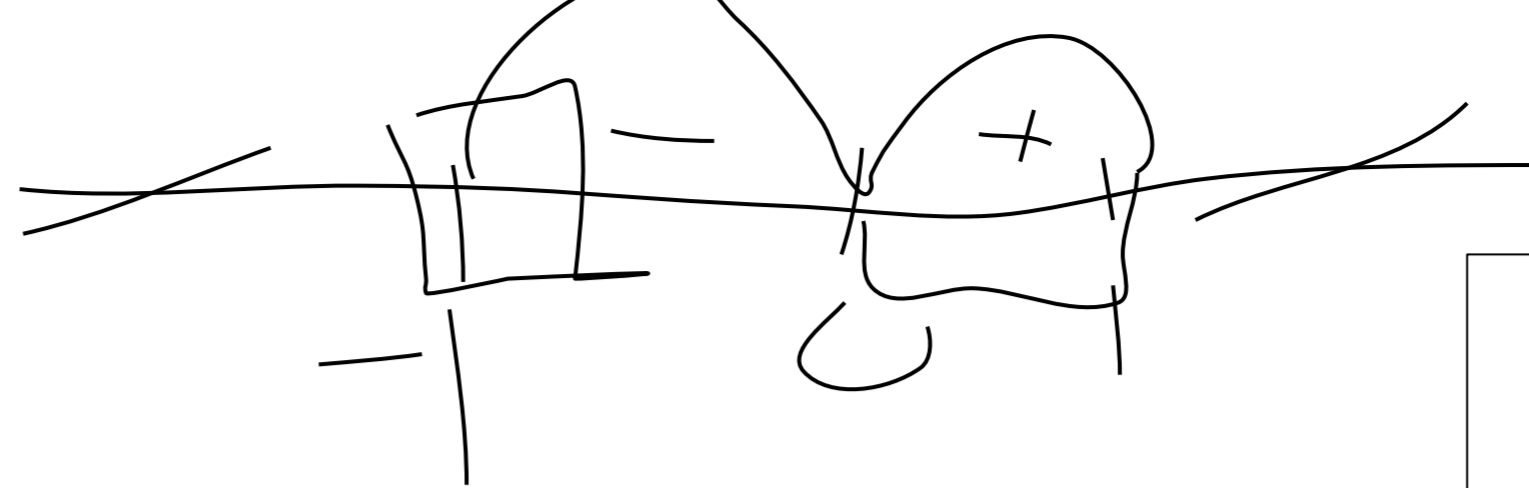
$$x \in [-1; 1]$$

$$1/2 \leq x^2$$

$$x \in (-\infty; -\sqrt{2}/2] \cup [\sqrt{2}/2; +\infty)$$

$$x \in [-1; -\sqrt{2}/2] \cup [\sqrt{2}/2; 1]$$

$$x \in [\sqrt{2}/2; 1] \setminus \{-1\}$$



АРКИ УРАВНЕНИЯ 06

$$\arcsin(2x\sqrt{1-x^2}) = \arccos(2x^2-1)$$

$$\arcsin(2x\sqrt{1-x^2}) = \arccos(2x^2-1) \quad || \sin$$

$$2x\sqrt{1-x^2} = \sqrt{1-(2x^2-1)^2}$$

при -1 они зануляются

тогда икс больше нуля

возводим в 2

$$4x^2(1-x^2) = 1-(2x^2-1)^2$$

$$x^2 = t$$

$$4t - 4t^2 - 1 + 4t^2 - 4t + 1 = 0$$

$$0 = 0$$