

$$\sqrt{-7-8x-x^2} = 2a+3-ax \Rightarrow \sqrt{-7-8x-x^2} = a(2-x)+3 \Rightarrow$$

$$-7-8x-x^2 = (a(2-x)+3)^2 \Rightarrow$$

$$\Rightarrow -7-8x-x^2 = a^2(2-x)^2 + 6a(2-x) + 9 \Rightarrow$$

$$\Rightarrow -7-8x-x^2 = 4a^2 - 4a^2x + a^2x^2 + 12a - 6ax + 9 \Rightarrow$$

$$\Rightarrow a^2x^2 + x^2 - 4a^2x - 6ax + 8x + 4a^2 + 12a + 16 = 0 \Rightarrow$$

$$\Rightarrow (a^2+1)x^2 - (4a^2+6a-8)x + 4a^2+12a+16 = 0$$

При  $D=0$  уравнение имеет единственный корень.

$$(4a^2+6a-8)^2 - 4(a^2+1)(4a^2+12a+16) = 0$$

$$16a^4 + 48a^3 + 4a^2 - 128a + 64 - 16a^4 - 48a^3 - 64a^2 - 16a^2 - 48a - 64 = 0$$

$$-76a^2 - 176a = 0 \Rightarrow a(76a + 176) = 0 \Rightarrow 76a(a + \frac{44}{19}) = 0$$

$$a = 0 \quad a = -\frac{44}{19} \quad \text{при } a = 0 \quad x = -4$$

~~16a^4~~

$$16a^4 + 48a^3 - 28a^2 - 96a + 64 - 16a^4 - 48a^3 - 64a^2 - 16a^2 - 48a - 64 = 0 \Rightarrow$$

$$-108a^2 - 144a = 0 \Rightarrow$$

$$\Rightarrow 108a(a + \frac{4}{3}) = 0 \quad a_1 = 0 \quad a_2 = -\frac{4}{3}$$