

Для решения нижеизложенных уравнений да помогут вам 2-е великие формулы

$$(x + y)^2 = x^2 + 2xy + y^2$$

$$x^2 - y^2 = (x + y)(x - y)$$

$$1) x^2 + 2 * x + 1 = 0$$

$$2) x^2 - 6 * x + 9 = 0$$

$$3) x^2 - 10 * x + 25 = 0$$

$$4) x^2 - 10 * x + 16 = 0$$

$$5) x^2 - 10 * x + 34 = 0$$

$$6) x^2 - 10 * x + 10 = 0$$

$$7) 4x^2 - 12 * x + 9 = 0$$

$$8) 25x^2 - 10 * x + 10 = 0$$

$$9) 16x^2 - 24 * x + 10 = 0$$

$$10) 2x^2 - 8 * x + 8 = 0$$

$$11) 2x^2 - 12 * x + 18 = 0$$

$$12) 27x^2 - 18 * x + 12 = 0$$

$$13) 4x^2 - 24 * x + 36 = 0$$

$$14) 4x^2 - 24 * x + 20 = 0$$

$$15) 3x^2 - 12 * x - 4 = 0$$

$$16) 3x^2 - 15 * x - 4 = 0$$

$$17) 3x^2 - 15 * x - 27 = 0$$

$$18) (!!!)(*) a * x^2 + b * x + c = 0$$

$$14) 4x^2 - 24 * x + 20 = 0$$

$$2^2x^2 - 2*x*12 + 20 = 0$$

$$(2x)^2 - 2*2x*6 + 6^2 - 6^2 + 20 = 0$$

$$(2x-6)^2 - 6^2 + 20 = 0$$

$$(2x-6)^2 - 16 = 0$$

$$(2x-6)^2 - 4^2 = 0$$

$$(2x-6+4)(2x-6-4) = 0$$

$$(2x-6+4) = 0 \text{ или } (2x-6-4) = 0$$

$$2x-6+4=0$$

$$2x-6-4=0$$

$$2x-6=-4$$

$$2x-6=4$$

$$2x=2$$

$$2x=10$$

$$x=1$$

$$x=5$$



$$a = \sqrt{a^2}$$

$$6) x^2 - 10 * x + 10 = 0$$

$$x^2 - 2*x*5 + 5^2 - 5^2 + 10 = 0$$

$$(x-5)^2 - 5^2 + 10 = 0$$

$$(x-5)^2 - 15 = 0$$

$$(x-5)^2 - (\sqrt{15})^2 = 0$$

$$(x-5+\sqrt{15})(x-5-\sqrt{15}) = 0$$

$$(x-5+\sqrt{15}) = 0 \text{ или } (x-5-\sqrt{15}) = 0$$

$$x-5+\sqrt{15} = 0$$

$$x+\sqrt{15} = 0+5$$

$$x = 5 - \sqrt{15}$$

$$x-5-\sqrt{15} = 0$$

$$x-\sqrt{15} = 0+5$$

$$x = 5 + \sqrt{15}$$

$$15) 3x^2 - 12 * x - 4 = 0$$

$$3(x^2 - 4*x - 4/3) = 0 \quad | :3$$

$$x^2 - 4*x - 4/3 = 0$$

$$x^2 - 2*x*2 + 2^2 - 2^2 + 4/3 = 0$$

$$(x-2)^2 - 2^2 + 4/3 = 0$$

$$(x-2)^2 - 4/1 + 4/3 = 0$$

$$(x-2)^2 - 8/3 = 0$$

$$(x-2)^2 - (\sqrt{8/3})^2 = 0$$

$$(x-2+\sqrt{8/3})(x-2-\sqrt{8/3}) = 0$$

$$x-2+\sqrt{8/3} = 0$$

$$x+\sqrt{8/3} = 2$$

$$x = 2 - \sqrt{8/3}$$

$$x-2-\sqrt{8/3} = 0$$

$$x-\sqrt{8/3} = 2$$

$$x = 2 + \sqrt{8/3}$$

$$16) 3x^2 - 15 * x - 4 = 0$$

$$3(x^2 - 5*x - 4/3) = 0 \quad | :3$$

$$x^2 - 5*x - 4/3 = 0$$

$$x^2 - 2*x*5/2 + (5/2)^2 - (5/2)^2 - 4/3 = 0$$

$$(x-5/2)^2 - (5/2)^2 - 4/3 = 0$$

$$(x-5/2)^2 - 25/4 - 4/3 = 0$$

$$(x-5/2)^2 - 25*3/12 - 4*4/12 = 0$$

$$(x-5/2)^2 - 91/12 = 0$$

$$(x-5/2)^2 - (\sqrt{91/12})^2 = 0$$

$$(x-5/2+\sqrt{91/12})(x-5/2-\sqrt{91/12}) = 0$$

$$x-5/2+\sqrt{91/12} = 0$$

$$x+\sqrt{91/12} = 5/2$$

$$x = (5/2) - \sqrt{91/12}$$

$$x-5/2-\sqrt{91/12} = 0$$

$$x-\sqrt{91/12} = 5/2$$

$$x = (5/2) + \sqrt{91/12}$$

$$a * x^2 + b * x + c = 0$$

$$D = b^2 - c*4a$$

$$x = (-b - \sqrt{D}) / (2a)$$

$$x = (-b + \sqrt{D}) / (2a)$$

$$18) a * x^2 + b * x + c = 0$$

$$a(x^2 + b/a*x + c/a) = 0 \quad | :a$$

$$x^2 + b/a*x + c/a = 0$$

$$x^2 + 2x*(b/a)/2 + c/a = 0$$

$$x^2 + 2x*b/(2a) + (b/(2a))^2 - (b/(2a))^2 + c/a = 0$$

$$(x+b/(2a))^2 - (b/(2a))^2 + c/a = 0$$

$$(x+b/(2a))^2 - b^2/(4a^2) + c/a = 0$$

$$(x+b/(2a))^2 - b^2/(4a^2) + c*4a/(4a^2) = 0$$

$$(x+b/(2a))^2 + (c*4a - b^2)/(4a^2) = 0$$

$$(x+b/(2a))^2 - (-c*4a + b^2)/(4a^2) = 0$$

$$-c*4a + b^2 = D$$

$$(x+b/(2a))^2 - D/(4a^2) = 0$$

$$(x+b/(2a))^2 - \sqrt{D/(4a^2)}^2 = 0$$

$$(x+b/(2a)+\sqrt{D/(4a^2)})(x+b/(2a)-\sqrt{D/(4a^2)}) = 0$$

$$(x+b/(2a)+\sqrt{D}/(2a))(x+b/(2a)-\sqrt{D}/(2a)) = 0$$

$$x+b/(2a)+\sqrt{D}/(2a) = 0$$

$$x+(b+\sqrt{D})/(2a) = 0$$

$$x = -(b+\sqrt{D})/(2a)$$

$$x = (-b-\sqrt{D})/(2a)$$

$$(x+b/(2a)-\sqrt{D}/(2a)) = 0$$

$$x+(b-\sqrt{D})/(2a) = 0$$

$$x = -(b-\sqrt{D})/(2a)$$

$$x = (-b+\sqrt{D})/(2a)$$