(1) $x^2 - 6x + 8 = 0$ (−4+2, 4·2)

$x^2 - 6x + 9 + 8 - 9 = 0$

$(x-3)^2 - 1 = 0 \quad |+1$

$(x-3)^2 = 1 \quad |\sqrt{\ }$

$x - 3 = \pm 1 \quad |+3$

$x = \pm 1 + 3$

$x_1 = 4$

$x_2 = 2$

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(2) $x^2 - 7x + 12 = 0$

$(7:2)^2 = 3{,}5^2 = 12{,}25$

$x^2 - 7x + 12{,}25 + 12 - 12{,}25 = 0$

$(x - 3{,}5)^2 - 0{,}25 = 0 \quad |+0{,}25$

$(x-3{,}5)^2 = 0{,}25 \quad |\sqrt{\ }$

$x - 3{,}5 = \pm 0{,}5 \quad |+3{,}5$

$x = \pm 0{,}5 + 3{,}5$

$x_1 = 4$

$x_2 = 3$

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(3) $x^2 - 12x + 35 = 0$

$x^2 - 12x + 36 + 35 - 36 = 0$

$(x-6)^2 - 1 = 0$

$(x-6)^2 = 1$

$x - 6 = \pm 1$

$x = \pm 1 + 6$

$x_1 = 7$

$x_2 = 5$

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

$x^2 - 2x + 1 - 3 - 1 = 0$

$(x-1)^2 - 4 = 0$

$(x-1)^2 = 4$

$x - 1 = \pm 2$

$x = \pm 2 + 1$

$x_1 = 3$

$x_2 = -1$

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(5) $5x^2 + 0{,}5x + 15 = 0$

(6) $5x^2 - 36x + 7 = 0$ } HA

(7) $x^2 + 1{,}7x + 0{,}6 = 0$ }

Jan 24-08:16

(5) $5x^2 + 0{,}5x + 15 = 0 \quad |:5$

$x^2 + 0{,}1x + 3 = 0$

$(0{,}1:2)^2 = 0{,}0025$

$x^2 + 0{,}1x + 0{,}0025 + 3 - 0{,}0025 = 0$

$(x + 0{,}05)^2 + 2{,}9975 = 0$

$(x + 0{,}05)^2 = -2{,}9975 \quad |\sqrt{\ }$

geht nicht

Jan 24-08:27