Zadaci 1

1

(%i1) solve(x^2-2*x=0,x);
(%o1) $[x=0, x=2]$

2

(%i2) solve(a*x^2+5*b*x-2=0,x);
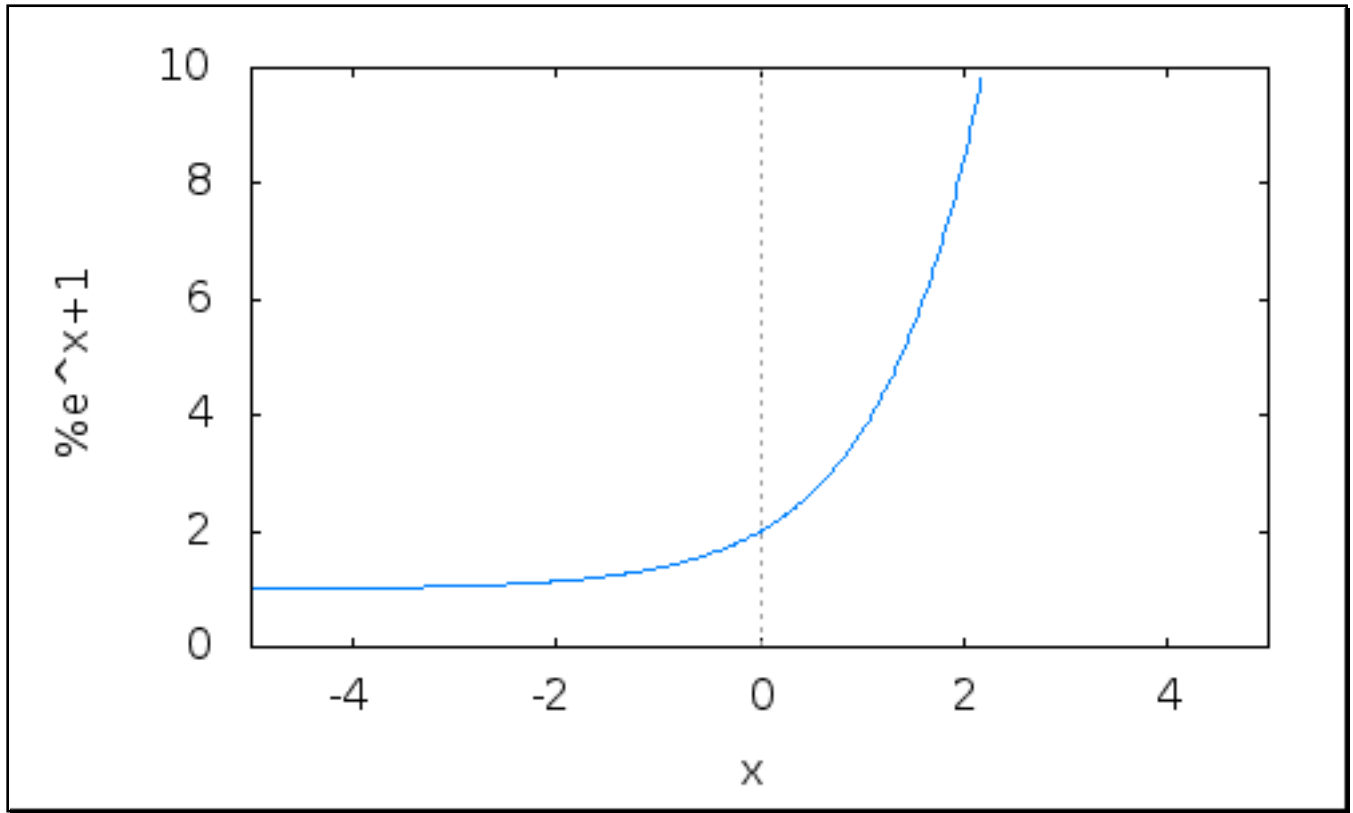(%o2) $[x=-\dfrac{\sqrt{25\,b^2+8\,a}+5\,b}{2\,a}, x=\dfrac{\sqrt{25\,b^2+8\,a}-5\,b}{2\,a}]$

3

(%i3) linsolve([2*x-y-1=0, x+2*y+4=0],[x,y]);
(%o3) $[x=-\dfrac{2}{5}, y=-\dfrac{9}{5}]$

4

(%i4) wxplot2d([%e^x+1],[x,-5,5],[y,0,10]);

plot2d: some values were clipped.

(%t4)

(%o4)

5

(%i5) e1: x^2+y^2=1;

(%o5) $y^2 + x^2 = 1$

(%i6) solve(e1,y);

(%o6) $[\, y = -\sqrt{1-x^2}\,,\, y = \sqrt{1-x^2}\,]$

(%i7) r: %;

(%o7) $[\, y = -\sqrt{1-x^2}\,,\, y = \sqrt{1-x^2}\,]$

(%i8) k1: rhs(r[1]);

(%o8) $-\sqrt{1-x^2}$

(%i9) k2: rhs(r[2]);

(%o9) $\sqrt{1-x^2}$

5.1

(%i10) e2: x+y-4=0;

(%o10) $y + x - 4 = 0$

(%i11) algsys([e1,e2],[x,y]);

(%o11) $[\,[\,x = -\dfrac{\sqrt{14}\,\%i - 4}{2}, y = \dfrac{\sqrt{2}\,\sqrt{7}\,\%i + 4}{2}\,], [\,x = \dfrac{\sqrt{14}\,\%i + 4}{2}, y = -$

$\dfrac{\sqrt{2}\,\sqrt{7}\,\%i - 4}{2}\,]\,]$

(%i12) p1: rhs(solve(e2,y)[1]);

(%o12) $4 - x$
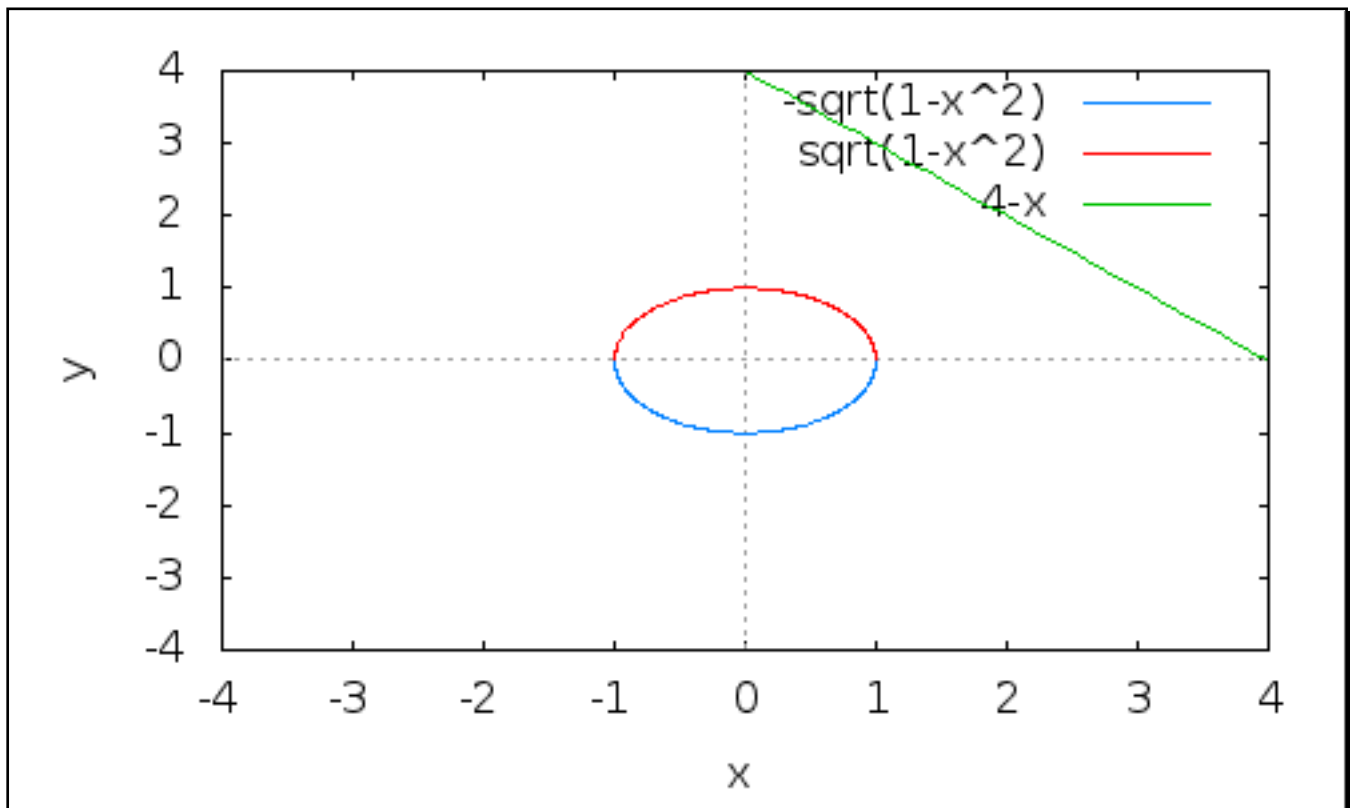
(%i13) wxplot2d([k1,k2,p1],[x,-4,4],[y,-4,4]);

plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: some values were clipped.

(%t13)

(%o13)

5.2

(%i14) e2: x+y-1=0;

(%o14) $y+x-1=0$

(%i15) algsys([e1,e2],[x,y]);

(%o15) $[[x=1,y=0],[x=0,y=1]]$
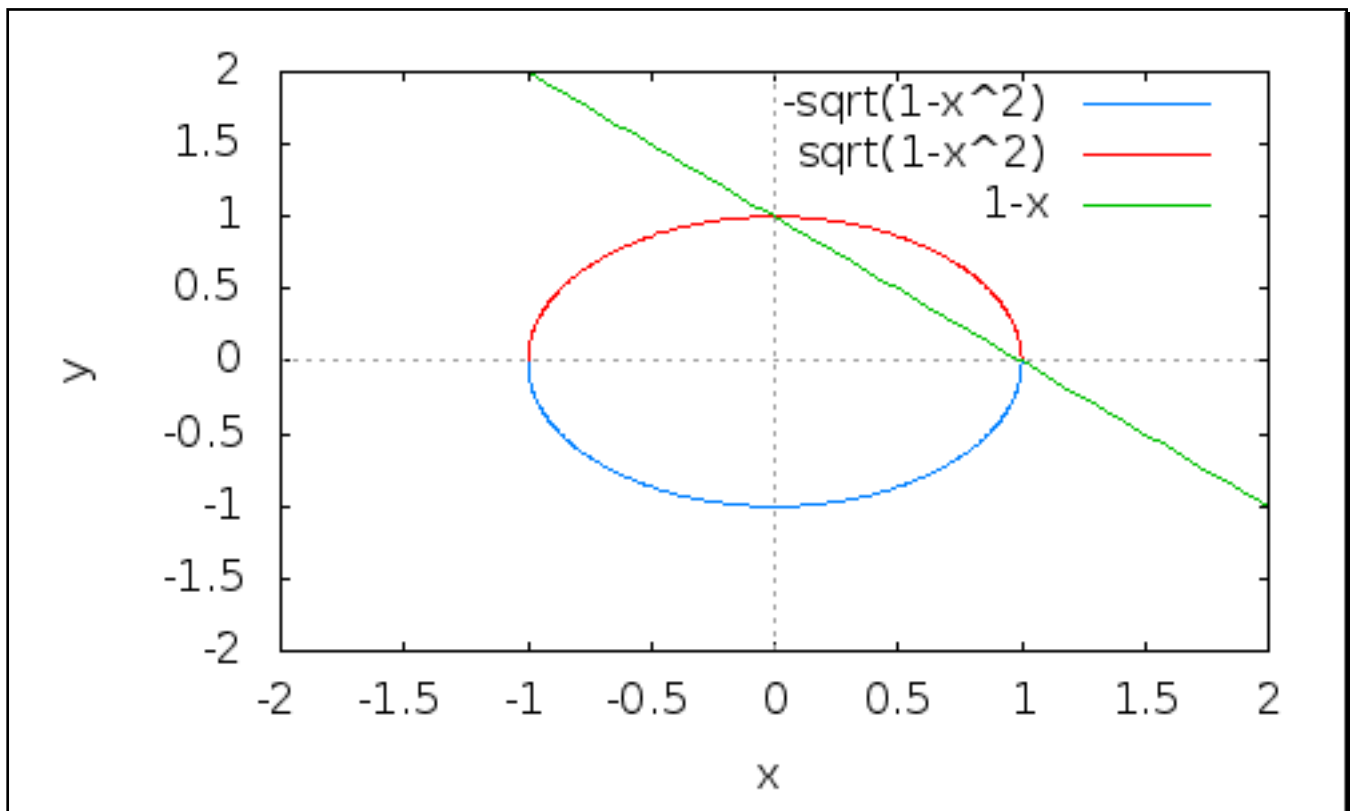
(%i16) p1: rhs(solve(e2,y)[1]);

(%o16) $1-x$

(%i17) wxplot2d([k1,k2,p1],[x,-2,2],[y,-2,2]);

plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: some values were clipped.

(%t17)

(%o17)

5.3

(%i18) e2: x+y-sqrt(24)=0;

(%o18) $y+x-2\sqrt{6}=0$

(%i19) `algsys([e1,e2],[x,y]);`

(%o19) $[[x=-\dfrac{\sqrt{22}\,\%i-2\,\sqrt{6}}{2}, y=\dfrac{\sqrt{2}\,\sqrt{11}\,\%i+2^{3/2}\,\sqrt{3}}{2}], [x=\dfrac{\sqrt{22}\,\%i+2\,\sqrt{6}}{2}$

$, y=-\dfrac{\sqrt{2}\,\sqrt{11}\,\%i-2^{3/2}\,\sqrt{3}}{2}]]$
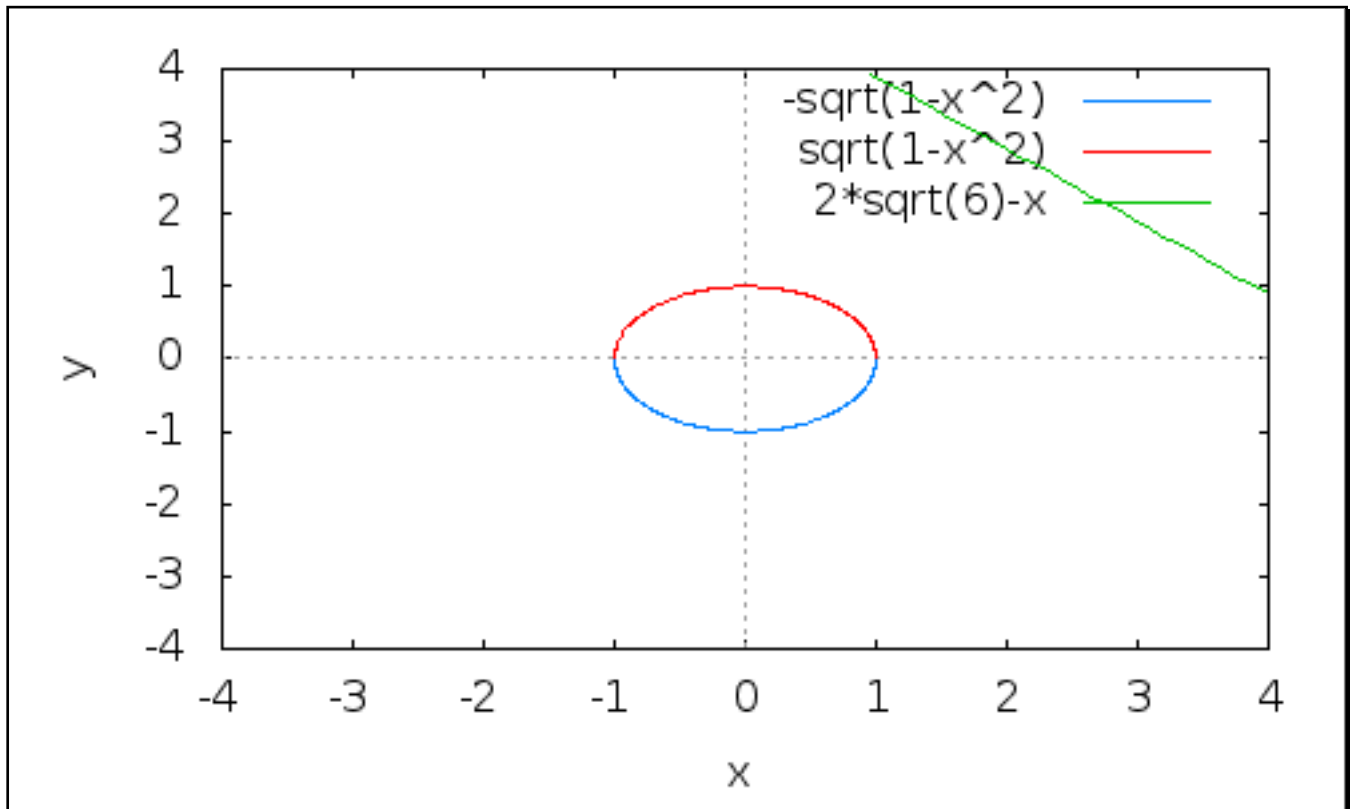
(%i20) `p1: rhs(solve(e2,y)[1]);`

(%o20) $2\,\sqrt{6}-x$

(%i21) `wxplot2d([k1,k2,p1],[x,-4,4],[y,-4,4]);`

plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: expression evaluates to non-numeric value somewhere in plotting range.
plot2d: some values were clipped.

(%t21)

(%o21)