(%i1)
```
declare(z,complex);
```
(%o1) *done*

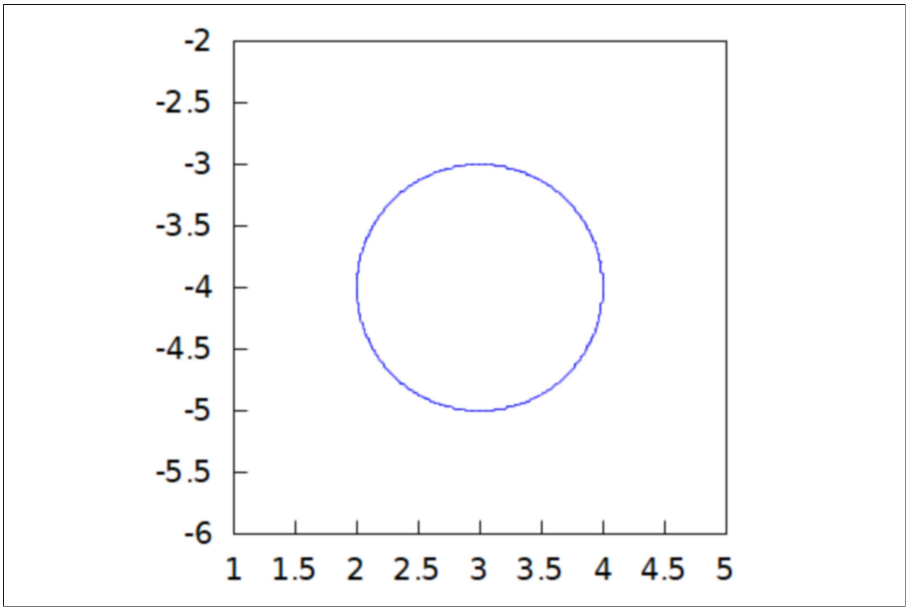
(%i2)
```
a:cabs(z-3+4·%i)=1;
```
(a) $$\sqrt{(\text{realpart}(z)-3)^2+(\text{imagpart}(z)+4)^2}=1$$

(%i3)
```
a:subst([realpart(z)=x,imagpart(z)=y],a);
```
(a) $$\sqrt{(y+4)^2+(x-3)^2}=1$$

(%i4)
```
load(draw);
```
(%o4)

D:\Programy\Maxima\maxima-5.42.1\share\maxima\5.42.1\share\draw\draw.lisp

(%i5)
```
wxdraw2d(
   proportional_axes=xy,
xaxis=true,
yaxis=true,
implicit(a,x,1,5,y,-6,-2));
```
(%t5)



(%o5)

(%i6)
```
kill(all);
```
(%o0) *done*

(%i1)
```
declare(z,complex);
```
(%o1) *done*

(%i2)
```
a:cabs(z+1-2·%i)=3;
```
(a) $$\sqrt{(\text{realpart}(z)+1)^2+(\text{imagpart}(z)-2)^2}=3$$

(%i3)
```
a:subst([realpart(z)=x,imagpart(z)=y],a);
```

(a) $$\sqrt{(y-2)^2+(x+1)^2}=3$$

(%i4)
```
b:cabs(z-3)=4;
```

(b) $$\sqrt{(\text{realpart}(z)-3)^2+\text{imagpart}(z)^2}=4$$

(%i5)
```
b:subst([realpart(z)=x,imagpart(z)=y],b);
```

(b) $$\sqrt{y^2+(x-3)^2}=4$$

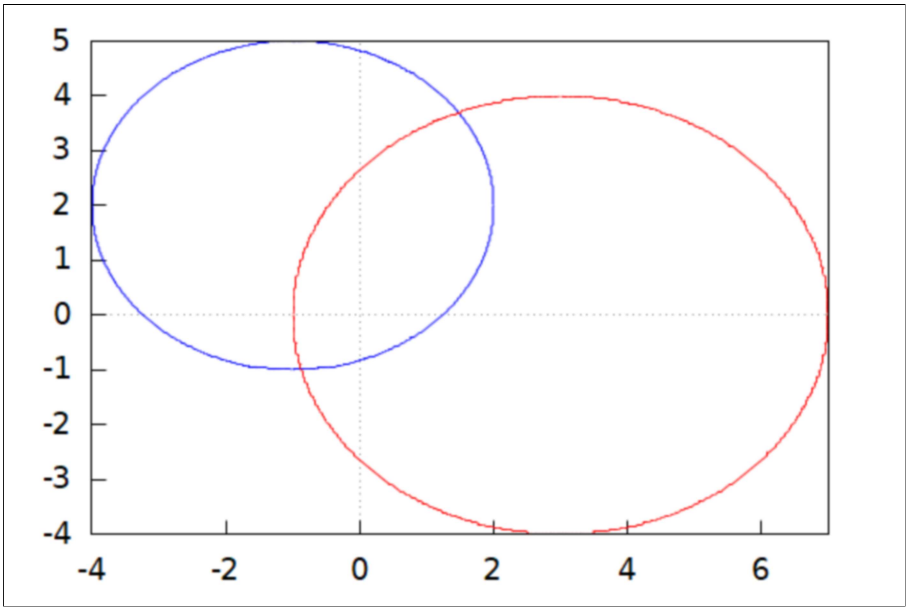
(%i6)
```
load(draw);
```

(%o6)

D:\Programy\Maxima\maxima-5.42.1\share\maxima\5.42.1\share\draw\draw.lisp

(%i7)
```
wxdraw2d(
xaxis=true,
yaxis=true,
implicit(a,x,-4,2,y,-1,5),
color=red,
implicit(b,x,-1,7,y,-4,4));
```

(%t7)



(%o7)

(%i8)
```
define(f(x,y),lhs(a));
```

(%o8) $$f(x,y):=\sqrt{(y-2)^2+(x+1)^2}$$

(%i9)
```
f(1,0);
```

(%o9) $$2^{3/2}$$

(%i10)
```
define(g(x,y),lhs(b));
```

(%o10) $$g(x,y):=\sqrt{y^2+(x-3)^2}$$

(%i11) h(x,y):=is (f(x,y)>=3 and g(x,y)<4);

(%o11) $h(x,y):=\text{is}(f(x,y)\geq 3 \text{ and } g(x,y)<4)$

(%i12) h(−2,2);

(%o12) **false**

(%i13) h(0,1);

(%o13) **false**

(%i14) h(3,0);

(%o14) **true**

(%i15) h(−2,−3);

(%o15) **false**

(%i16) r:solve(a,y);

(r) $[y=2-\sqrt{-x^2-2x+8},y=\sqrt{-x^2-2x+8}+2]$

(%i17) dga:rhs(r[1]);

(dga) $2-\sqrt{-x^2-2x+8}$

(%i18) gga:rhs(r[2]);

(gga) $\sqrt{-x^2-2x+8}+2$

(%i19) r1:solve(b,y);

(r1) $[y=-\sqrt{-x^2+6x+7},y=\sqrt{-x^2+6x+7}]$

(%i20) dgb:rhs(r1[1]);

(dgb) $-\sqrt{-x^2+6x+7}$

(%i21) ggb:rhs(r1[2]);

(ggb) $\sqrt{-x^2+6x+7}$

(%i22) algsys([a^2,b^2],[x,y]);

(%o22) $[[x=-\frac{\sqrt{551}-6}{20},y=-\frac{2\sqrt{551}-27}{20}],[x=\frac{\sqrt{551}+6}{20},y=\frac{2\sqrt{551}+27}{20}]]$

(%i23) p1:−(sqrt(551)−6)/20;

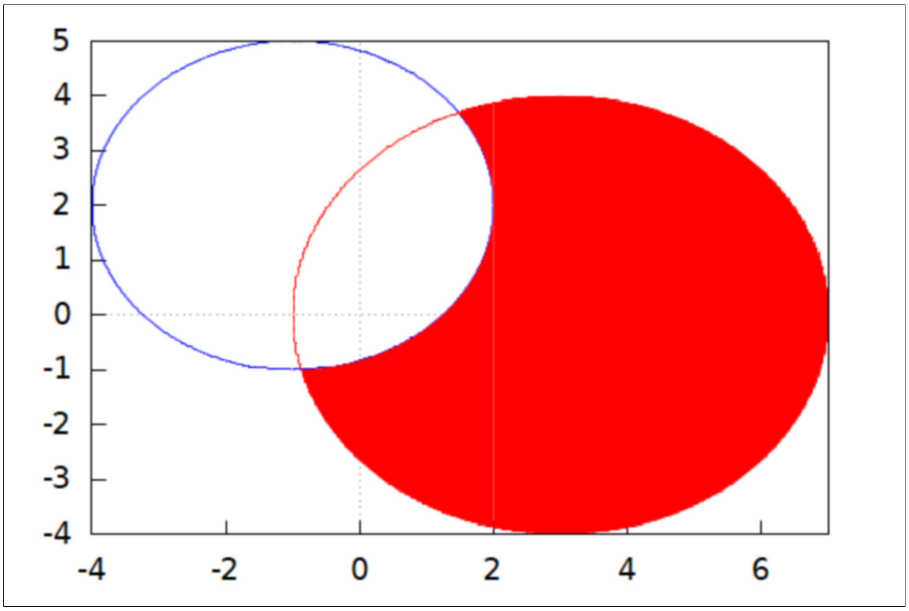
(p1) $\frac{6-\sqrt{551}}{20}$

(%i24)
```
p2:(sqrt(551)+6)/20;
```

(p2)
$$\frac{\sqrt{551}+6}{20}$$

(%i27)
```
wxdraw2d(
xaxis=true,
yaxis=true,
implicit(a,x,−4,2,y,−1,5),
color=red,
implicit(b,x,−1,7,y,−4,4),
filled_func=dgb,
explicit(dga,x,p1,2),
filled_func=dgb,
explicit(ggb,x,2,7),
filled_func=gga,
explicit(ggb,x,p2,2));
```

(%t27)



(%o27)