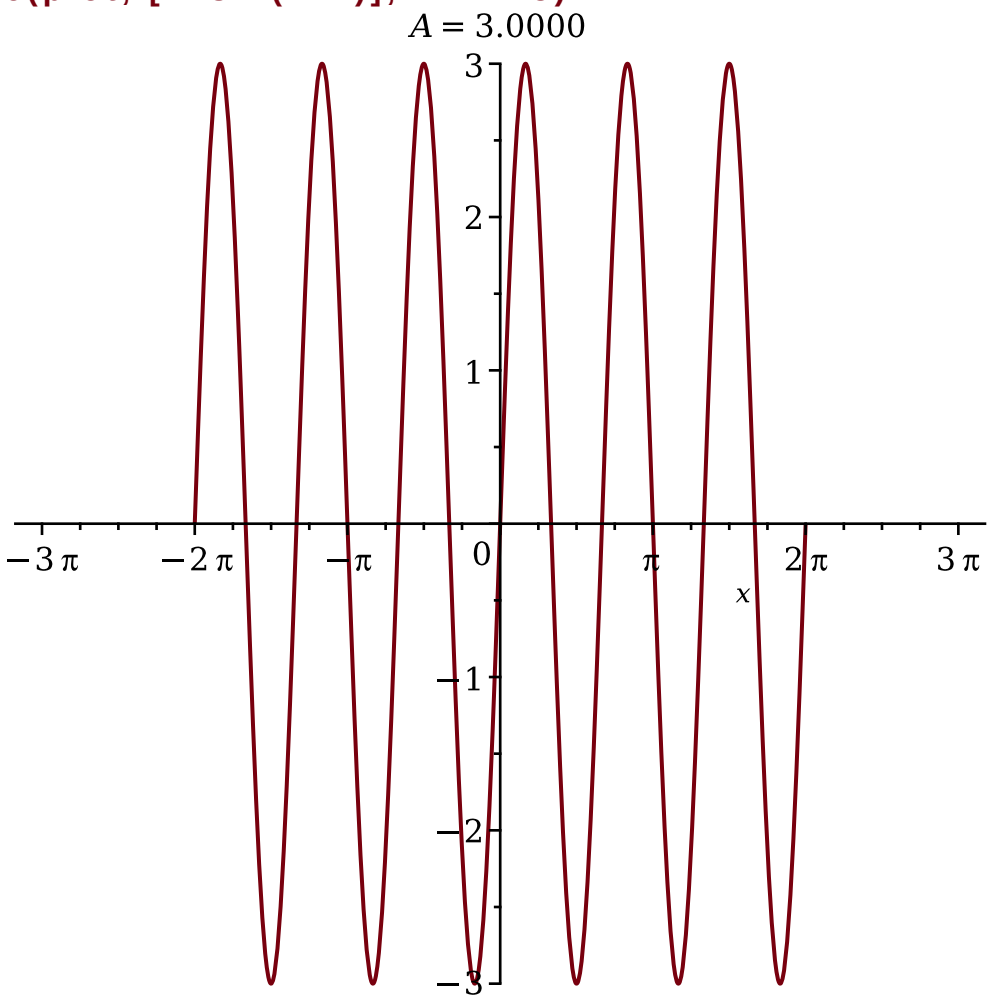
```
> restart
> with(plottools):
> with(plots):
```

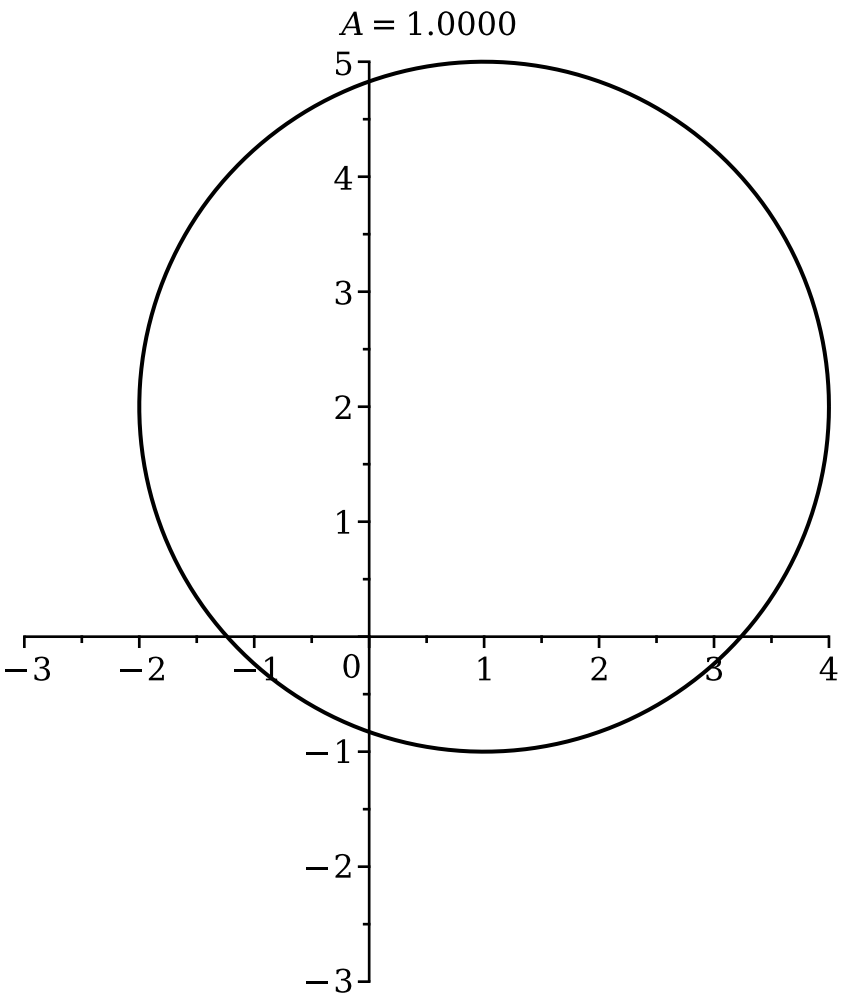
1)

```
> animate(plot, [A*sin(A*x)], A=-1..3)
```



2)

```
> animate(circle, [[A, 2*A],3], A=0..1, scaling=constrained)
```

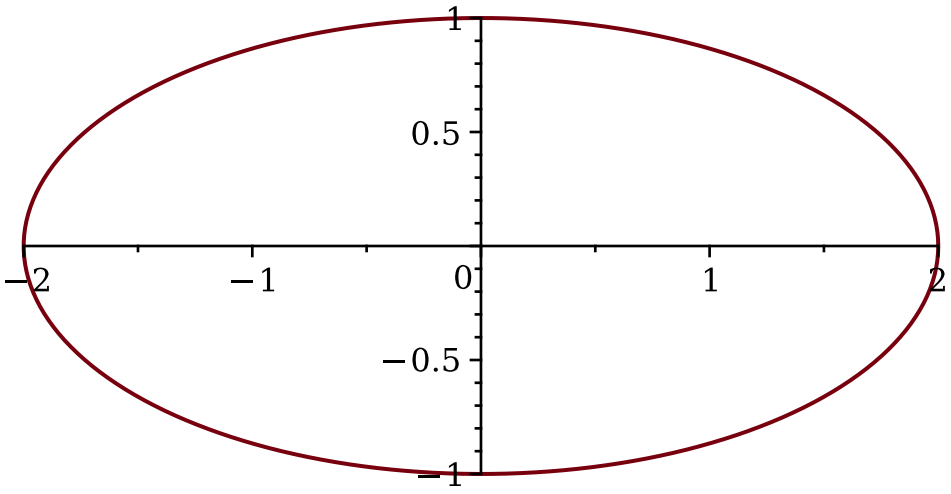


3)

```
sq := proc(t)
        local elipsa, ctverecek
        elipsa := plot([2*cos(s), sin(s), s=0..2*Pi]):
        ctverecek:= point([2*cos(t), sin(t)], symbol="solidbox", symbolsize =30):
        display(elipsa, ctverecek)
end proc:
```

```
> animate(sq, [A], A=0..2*Pi, scaling=constrained)
```

$$A = 6.2832$$

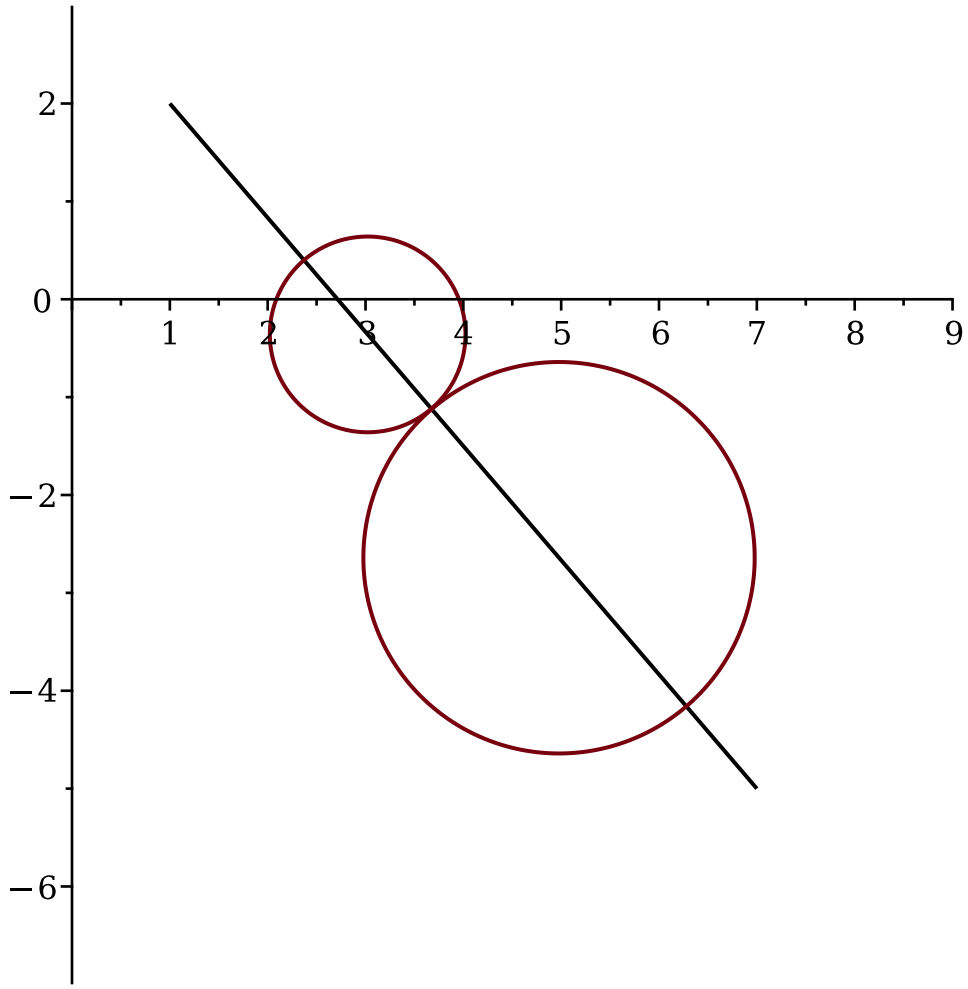


4)

a)

```
kruznice := proc(par)
            local k1, k2, usecka:
            usecka := line([1, 2], [7, -5]):
            k1 := plot([cos(t)+(1+6*par), sin(t)+(2-7*par), t=0..2*Pi]):
            k2 := plot([2*cos(t)+(7-6*par), 2*sin(t)-(5-7*par), t=0..2*Pi]):
            display(usecka, k1, k2);
end proc:
```

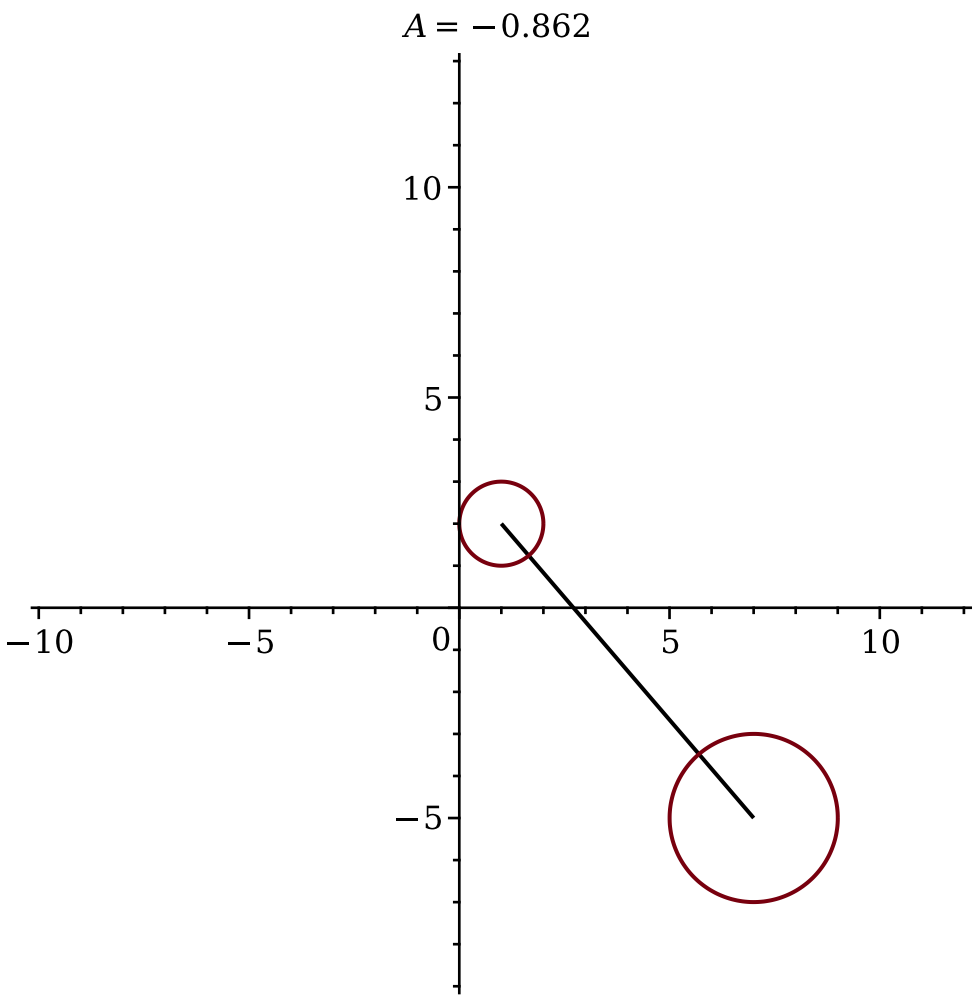
```
> animate(kruznice, [A], A=0..0.337, scaling=constrained,
  paraminfo=false); # bulharske konstanty introduced
```



b)

```
1  kruznice := proc(par)
2              local k1, k2, usecka:
3              usecka := line([1, 2], [sqrt(7**2 + 6**2)*cos(par)+1, sqrt(7**2 + 6**2)*sin(par)+2]):
4              k1 := plot([cos(t)+1, sin(t)+2, t=0..2*Pi]):
5              k2 := plot([2*cos(t)+sqrt(7**2 + 6**2)*cos(par)+1, 2*sin(t)+sqrt(7**2 + 6**2)*sin(par)+2, t=0..2*Pi]):
6              display(usecka, k1, k2);
7  end proc:
```

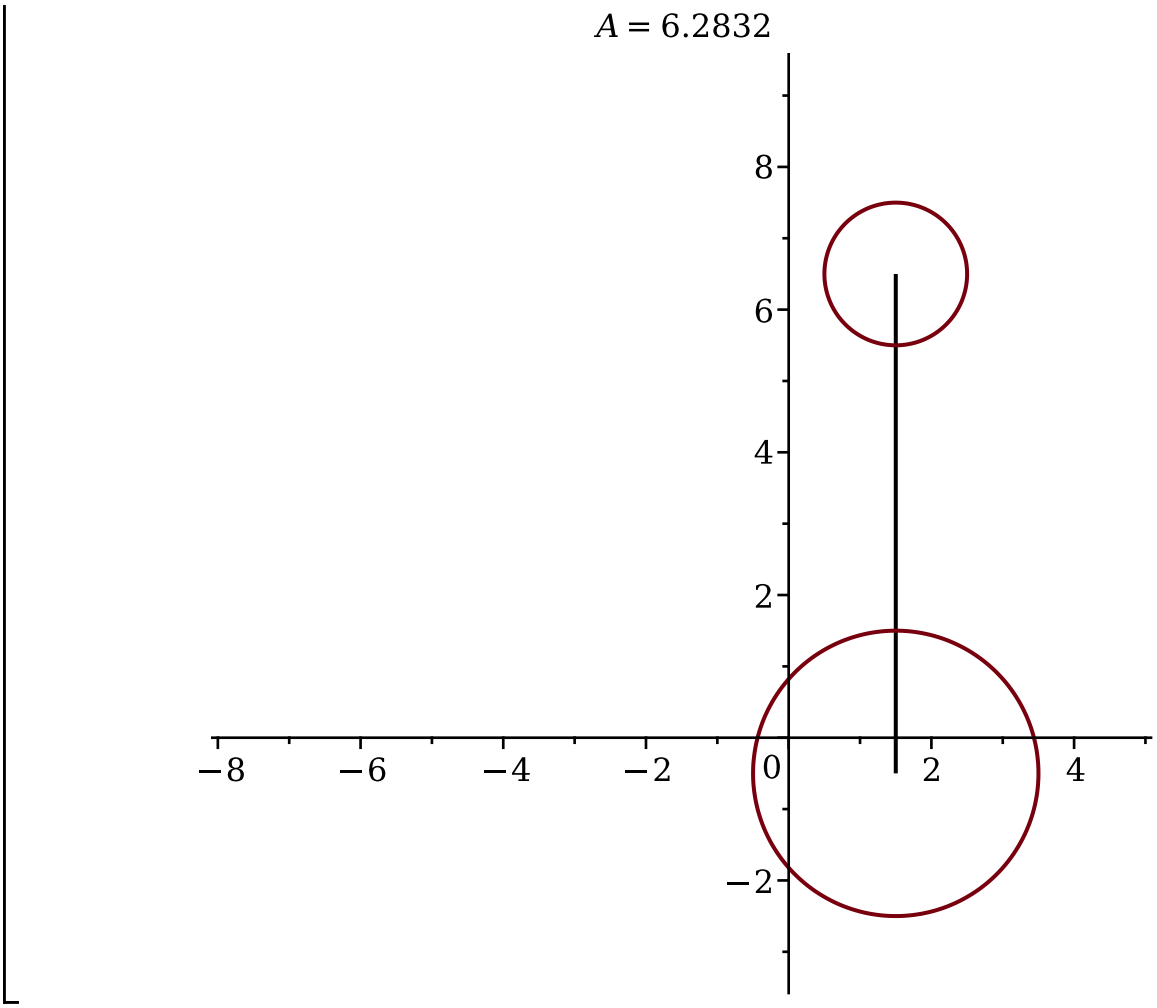
```
> animate(kruznice, [A], A=-.862..5.421, scaling=constrained);
  #bulharske konstanty introduced
```



c)

```
kruznice := proc(par)
            local k1, k2, usecka, r:
            r := sqrt(7**2 + 6**2)*0.5:
            usecka := line([r*cos(par+.862)-1.5, r*sin(par+.862)+3], [r*cos(par-.862)-1.5, r*sin(par-.862)+3]):
            k1 := plot([cos(t)+r*cos(par+.862)-1.5, sin(t)+ r*sin(par+.862)+3, t=0..2*Pi]):
            k2 := plot([2*cos(t)+r*cos(par-.862)-1.5, 2*sin(t)+r*sin(par-.862)+3, t=0..2*Pi]):
            display(usecka, k1, k2);
end proc:
```

> animate(kruznice, [A], A=0..2*Pi, scaling=constrained); #neni to ono, ale je to cool a nemam cas to predelat


$A = 6.2832$
8
6
4
2
−2
−8
−6
−4
−2
0
2
4