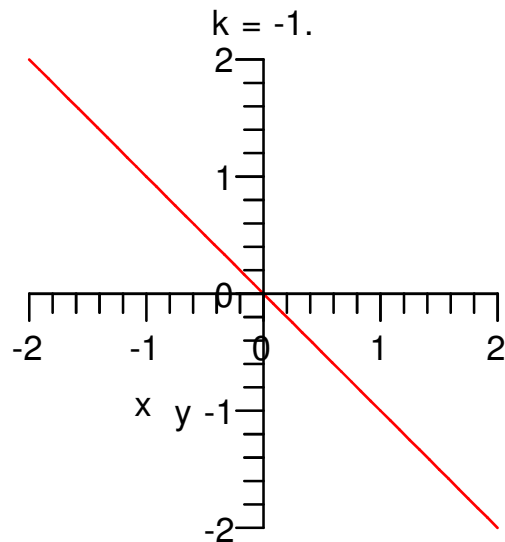


#1

&gt;

```
> restart:with(plots):
animate(plot,[k*x,x=-2..2,y=-2..2],k=-1..1);
```



#2

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

```
a := -4: b := 4: c := -2: d := 2: p := 0: n := 10:
```

```
f := x -> sin(x) :
```

```
for k from 1 to n do
```

```
  m[k] := unapply(convert(taylor(f(x),x=p,k),polynom),x) :
```

```
end do:
```

```
an1 := plot(f(x),x=a..b,view=c..d,color=BLUE) :
```

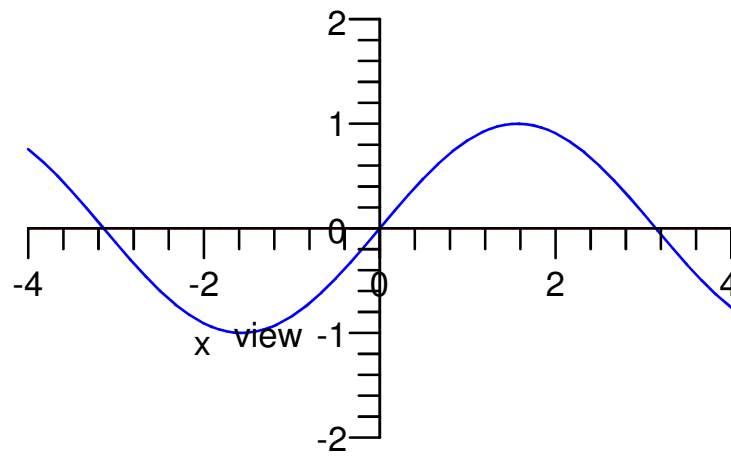
```
for k from 1 to n do
```

```
  an2[k] := plot(m[k](x),x=a..b,color=RED) :
```

```
end do:
```

```
q := plots[display]([seq(an2[k],k=1..n)],insequence=true) :
```

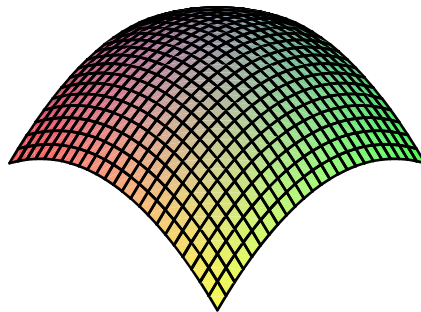
```
display(an1,q) ;
```



#3

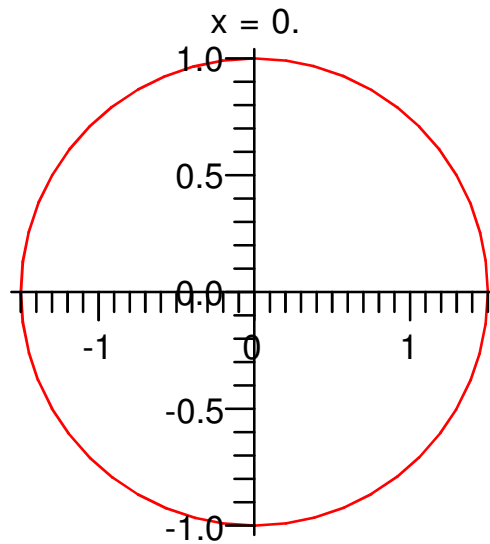
```
> restart:with(plots):
animate(plot3d, [k*(x^2+y^2), x=-5..5, y=-5..5], k=-10..10);
```

k = -10.



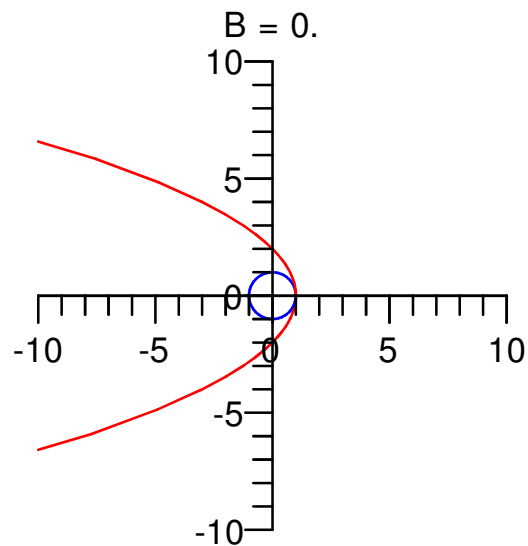
#4

```
> animate(plot, [(1+cos(x)/2)*sin(t), cos(t), t=0..2*Pi], x=0..2*Pi);
```



#5

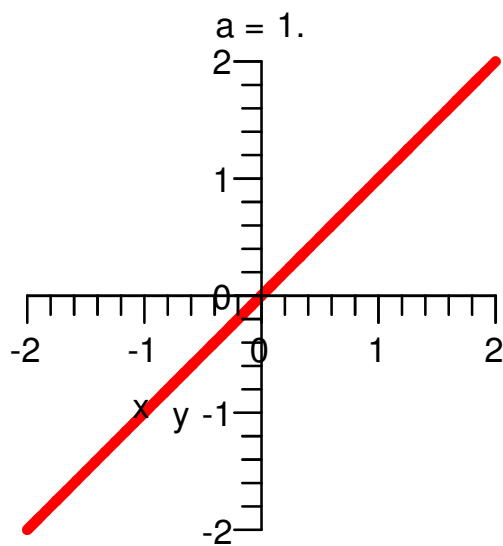
```
> A:=plot([1,theta,theta=0..2*Pi],-10..10,y=-10..10,coords=polar,
color=blue):
animate(plot,[2/(1+cos(theta+B)),theta,theta=0..2*Pi],coords=
polar,color=red),B=0..2*Pi,background=A);
```



#6

```
> restart:
with(plots):
A1:=animate(plot,[a*x,x=-2..2,y=-2..2,thickness=3,color=red],a=1.
.-1):
A2:=animate(plot,[a*x,x=-2..2,y=-2..2,thickness=3,color=red],a=-1.
.1):
```

```
A3:=animate(plot,[x+a,x=-2..2,y=-2..2,thickness=3,color=blue],a=0.
.1):
A4:=animate(plot,[x+a,x=-2..2,y=-2..2,thickness=3,color=blue],a=1.
.0):
A5:=animate(plot,[x-a,x=-2..2,y=-2..2,thickness=3,color=blue],a=0.
.1):
A6:=animate(plot,[x-a,x=-2..2,y=-2..2,thickness=3,color=blue],a=1.
.0):
display([A1,A2,A3,A4,A1,A2,A5,A6],insequence=true);
```



[ >