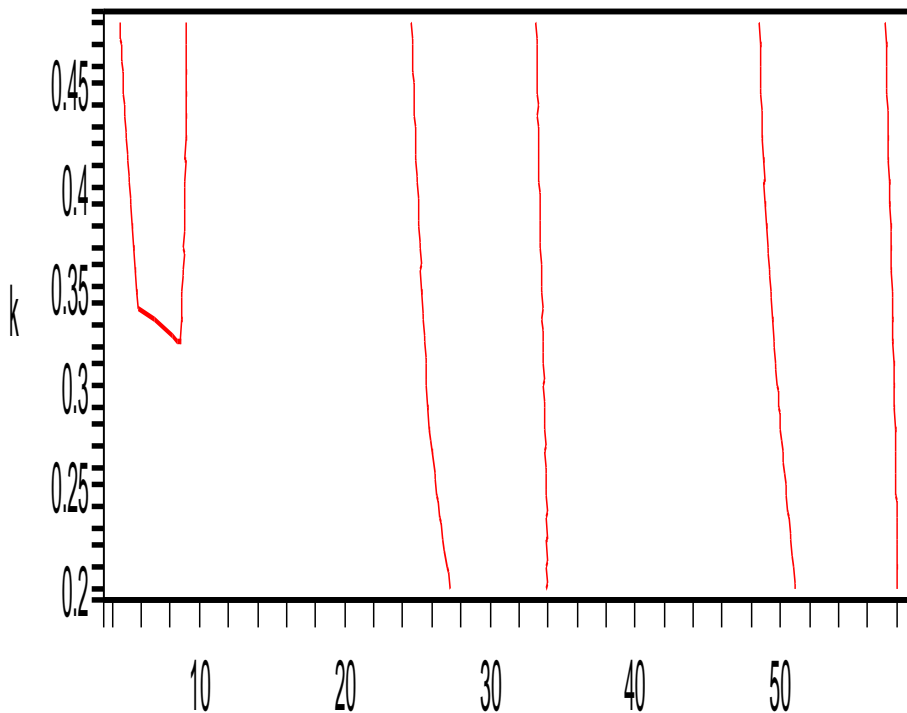


```

> unassign('t','u0','k','omega'):
> AA:=unapply(35-14*cos(omega*(t-3)),(t,omega));
> uss:=35-(14*k/(k^2+omega^2))*(k*cos(omega*(t-3))+omega*sin(omega*(t-3))):
> uss0:=subs(t=0,uss);
> U:=unapply((u0-uss0)*exp(-k*t)+uss,(t,u0,k,omega)):
      AA := (t,omega) -> 35 - 14 cos(omega (t - 3))
      uss0 := 35 - 14  $\frac{k(k \cos(-3\omega) + \omega \sin(-3\omega))}{k^2 + \omega^2}$ 
> plot(U(t,74,0.32,Pi/12),AA(t,Pi/12),t=0..48,axes=boxed);

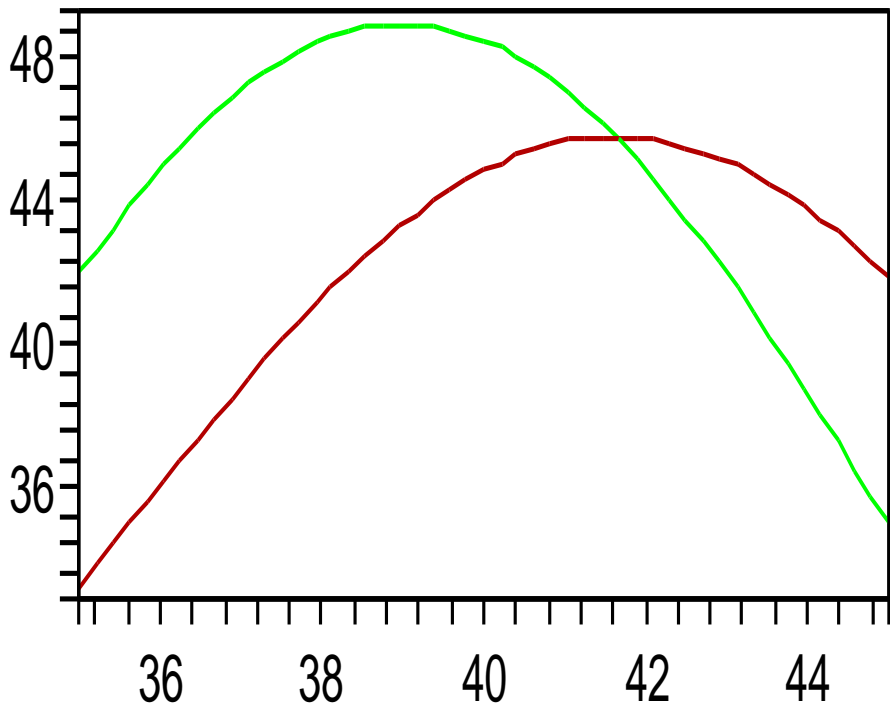
```



```

> # u(t) passes through t=0, u=74
# uss(t) passes through t=0, u=uss0 [about 26].
# Then 74-24.7=temp range of u(t)
# Then 48.8[max] - 20.8[min] = temp range of uss(t)
> plot(U(t,74,0.32,Pi/12),AA(t,Pi/12),t=35..45,axes=boxed);

```



```
> # phase delay == t2 - t1,  
# t2=time of max u(t), t1=time of max uss(t)  
# phase delay == 41.9 - 39.2
```