

```
> F:=x->r*x*(1-x/K):G:=x->r*x*(1-x/K)-H:
> solve(G(x)=0,x);
```

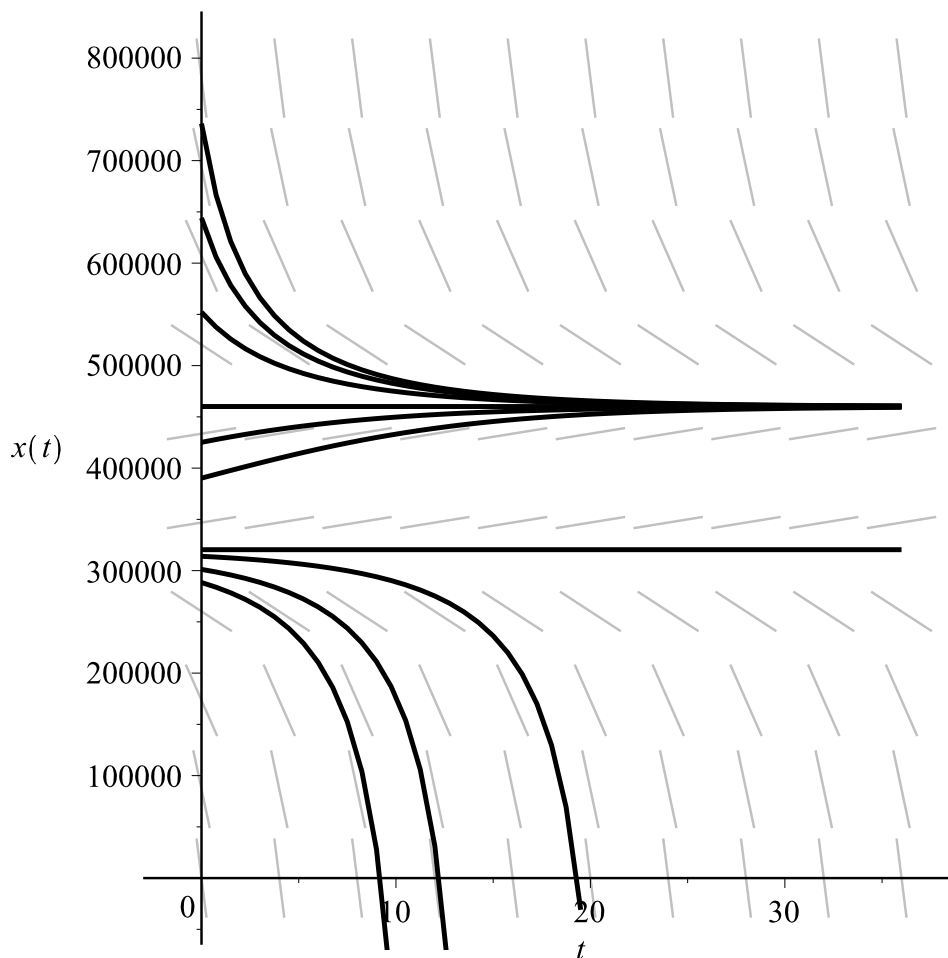
$$\frac{1}{2} \frac{Kr + \sqrt{K^2 r^2 - 4HKr}}{r}, \frac{1}{2} \frac{Kr - \sqrt{K^2 r^2 - 4HKr}}{r}$$

(1)

```
> de:=diff(x(t),t)=G(x(t)):r:=0.8:K:=780500:H0:=K*r/4:H:=H0-5000:
a:=K/2+(1/2)*sqrt(K^2-4*H*K/r);b:=K/2-(1/2)*sqrt(K^2-4*H*K/r);
ic:=[[0,0.9*b],[0,0.94*b],[0,0.98*b],[0,b],[0,(a+b)/2],[0,(3*a+b)
/4],
[0,a],[0,1.2*a],[0,1.4*a],[0,1.6*a]]:
opts:=dirfield=[10,10],arrows=line,color=gray,linecolor=black,
thickness=2:
> DEtools[DEplot](de,x(t),t=0..36,x=0..K,ic,opts);
```

$$a := 4.600935752 \cdot 10^5$$

$$b := 3.204064248 \cdot 10^5$$



```
> de:=diff(x(t),t)=G(x(t)):
r:=0.8:K:=780500:H0:=K*r/4:
H:=H0+6000;a:=K/2;b:=K/2;
ic:=[[0,0.9*b],[0,0.94*b],[0,0.98*b],[0,b],[0,a],[0,1.2*a],[0,
1.4*a],
[0,1.6*a],[0,1.8*a],[0,2*a]]:
```

```
opts:=dirfield=[10,10],arrows=line,color=gray,linecolor=black,  
thickness=2:  
DEtools[DEplot](de,x(t),t=0..36,x=0..K,ic,opts);
```

```
H:= 1.621000000 105
```

```
a := 390250
```

```
b := 390250
```

