Untitled-4

```
(a) krug
        a)
In[142]:=
        f[x_{-}] = (0.1001 * Sin[9.98 * 10^4 * x]) * e^{-5*10^3 * x}
        Plot[{f[x], g[x]}, {x, 0, \pi/(10^3)}, PlotRange \rightarrow {-0.08, 1.1}]
          1
       0.8
       0.6
       0.4
        0.2
              0.0005 0.001 0.0015 0.002 0.0025 0.003
        b)
In[145]:=
        f[x_] = (0.516 * Sin[9.68 * 10^4 * x]) * e^{-2.5*10^4 * x}
        Plot[\{f[x], g[x]\}, \{x, 0, \pi/(10^3)\}, PlotRange \rightarrow \{-0.08, 1.1\}]
       0.8
       0.6
       0.4
        0.2
               0.0005 0.001 0.0015 0.002 0.0025 0.003
```

c)

Untitled-4 2

```
In[151]:=

f[x_{-}] = (5 * Sin[9.99 * 10^4 * x]) * e^{-2.5*10^5 * x}

g[x_{-}] = 1

Plot[{f[x], g[x]}, {x, 0, \pi/(10^4)}, PlotRange \rightarrow {-0.08, 1.1}}

0.8

0.6

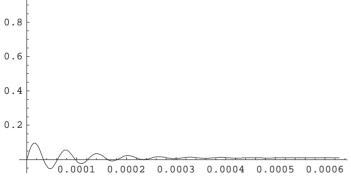
0.4

0.2

0.00005 0.0001 0.00015 0.0002 0.00025 0.0003
```

```
(b) krug

a)
f[x_{-}] = (0.1009 * \sin[1.005 * 10^{5} * x]) * e^{-1*10^{4}*x} + 9.9 * 10^{-3} - (9.9 * 10^{-3} * \cos[1.005 * 10^{5} * x]) * e^{-1*10^{4}*x}
g[x_{-}] = 1
Plot[\{f[x], g[x]\}, \{x, 0, \pi/(5*10^{3})\}, PlotRange \rightarrow \{-0.08, 1.1\}]
```



b)

Untitled-4 3

```
In[170]:=
         f[x_] = (0.525 * Sin[9.79 * 10^4 * x]) * e^{-3*10^4 * x} +
           4.76*10^{-2} - (9.9*10^{-3}*Cos[1.005*10^{5}*x])*e^{-1*10^{4}*x}
        g[x_] = 1
        Plot[\{f[x], g[x]\}, \{x, 0, \pi/(5*10^3)\}, PlotRange \rightarrow \{-0.08, 1.1\}]
        0.8
        0.6
        0.4
        0.2
               V0.0001 0.0002 0.0003 0.0004 0.0005 0.0006
         c)
In[203]:=
         f[x_] = (4.15 * Sin[1.005 * 10^5 * x]) * e^{-1*10^4 * x} +
           0.333 - (0.333 * Cos[1.23 * 10^5 * x]) * e^{-2.55*10^4 * x}
         Plot[{f[x], g[x]}, {x, 0, \pi/(10^3)}, PlotRange \rightarrow {-3, 4.2}]
         3
         2
         1
               0.0005 0.001 0.0015 0.002 0.0025 0.003
```

-3