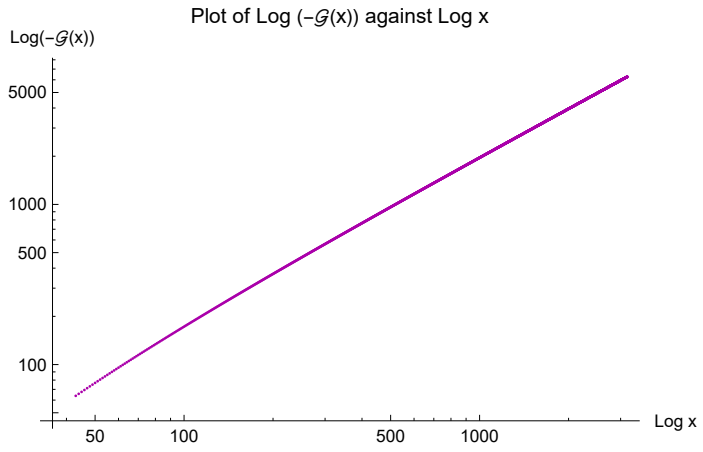
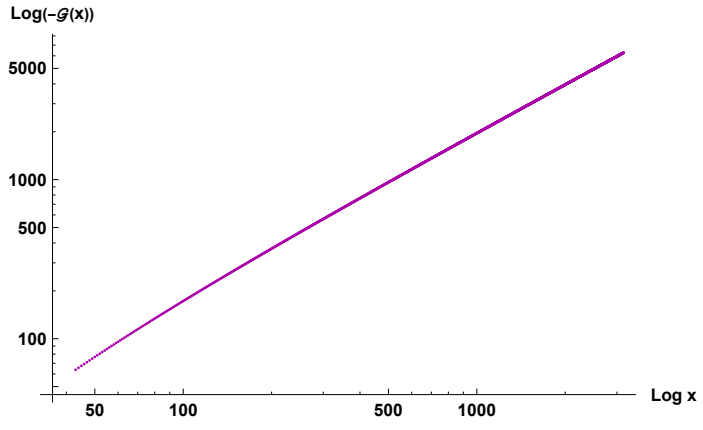
In[1]:=
```
PrimePiApprox[x_] := If[x < 2, 0, N[LogIntegral[x], 100]]

G[x_] := Module[{e = Exp[1], logx, piX, piXDivE}, logx = Log[x];
  piX = PrimePiApprox[x];
  piXDivE = PrimePiApprox[x / e];
  piX^2 - (e * x / logx) * piXDivE]

xMin = Exp[43];
xMax = Exp[3159];
xValues = Exp[Range[Log[xMin], Log[xMax], 1]];

gValues = G /@ xValues;
logNegGValues = Log[Abs[-gValues]];

ListLogLogPlot[Transpose[{Log[xValues], logNegGValues}], PlotStyle → Darker[Magenta],
 AxesLabel → {"Log x", "Log(-𝒢(x))"}, PlotLabel → "Plot of Log (-𝒢(x)) against Log x",
 GridLines → None, AspectRatio → 1 / GoldenRatio]
```

Out[8]=



In[9]:=
```
Show[%8, PlotLabel → None, LabelStyle → {GrayLevel[0], Bold}]
```

Out[9]=



In[11]:= **Show[%9, AxesStyle → Thick]**

Out[11]=