```
Text[
 Style["----------------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD", Green, 30]]
Text[
 Style["----------------------------------------------------------------", Green, 14]]
Text[Style["----------------------------------------------------------------",
  Blue, 14]]
Text[Style["Limit Revolution , First Example", Blue, 30]]
Text[
 Style["----------------------------------------------------------------", Blue, 14]]

Text[Style["Step 1 : Defining The Integer Part Function.", Blue, 14]]

Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]

Text[
 Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.", Blue, 14]]

F = Function[{x}, Intg[x]/x]
Text[Style["Step 3 : Transformed Function Chart", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P001 = Plot[{ArcTan[Intg[Tan[x]]] / ArcTan[Tan[x]]},
  {x, -Pi/2, Pi/2}, PlotRange → {-Pi/2, Pi/2}, Frame → True]

Text[Style["Step 4 : The Y=(Limit Answer) Chart.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P002 = Plot[{ArcTan[Intg[Tan[π/2 - 0.01 * 10^-305]]] / ArcTan[Tan[π/2 - 0.01 * 10^-305]]},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style[
  "Step 5 : Ploting The Two Previous Functions On The Same Graphics Row.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P003 = Plot[{ArcTan[Intg[Tan[x]]] / ArcTan[Tan[x]],
   ArcTan[Intg[Tan[π/2 - 0.01 * 10^-305]]] / ArcTan[Tan[π/2 - 0.01 * 10^-305]]},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style["Step 6 : Ploting The Transformed Function And The Y=(Limit
    Answer) And Two Previous Functions On The Same Plot.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

GraphicsRow[{P001, P002, P003}, Frame → All]
```

```
Text[
 Style["Step 7 : Printing The Result of Limit[Intg[x]/x,x→+Infinity] Using New Methods .",
  Blue, 14]]
```

```
ArcTan[Intg[Tan[Pi/2 - 0.01 * 10^-305]]] / ArcTan[Tan[Pi/2 - 0.01 * 10^-305]]
```

In The Name Of GOD

Limit Revolution , First Example

Step 1 : Defining The Integer Part Function.

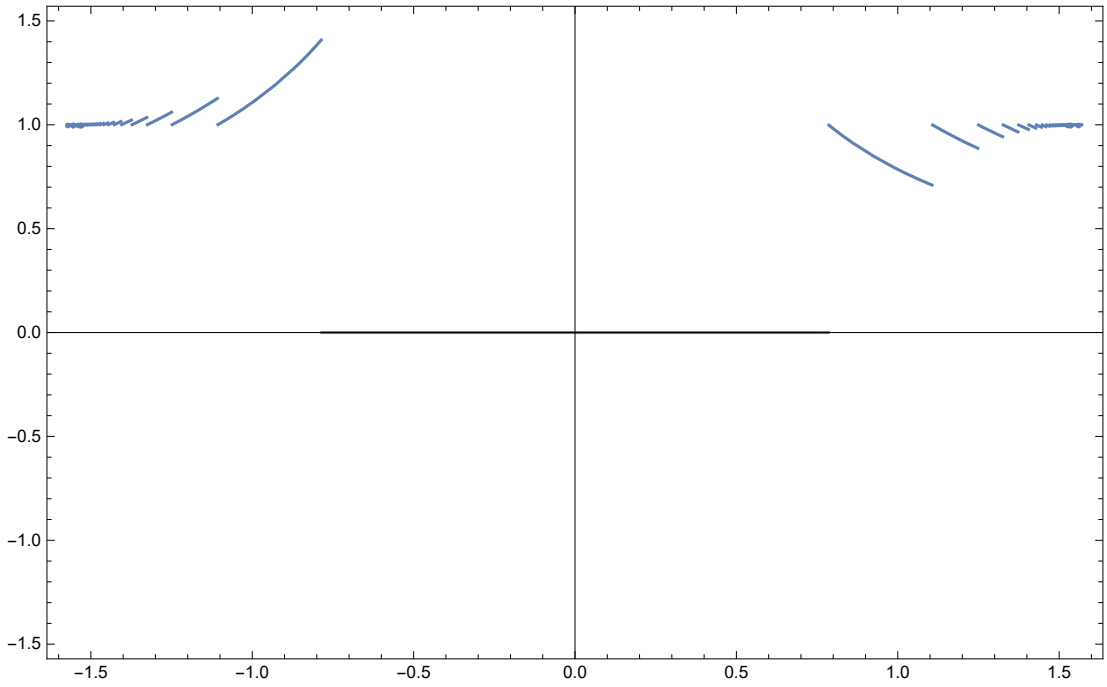
```
Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

Step 2 : Defining The Main Function That We Want To Find It,s Limit.

```
Function[{x}, Intg[x]/x]
```

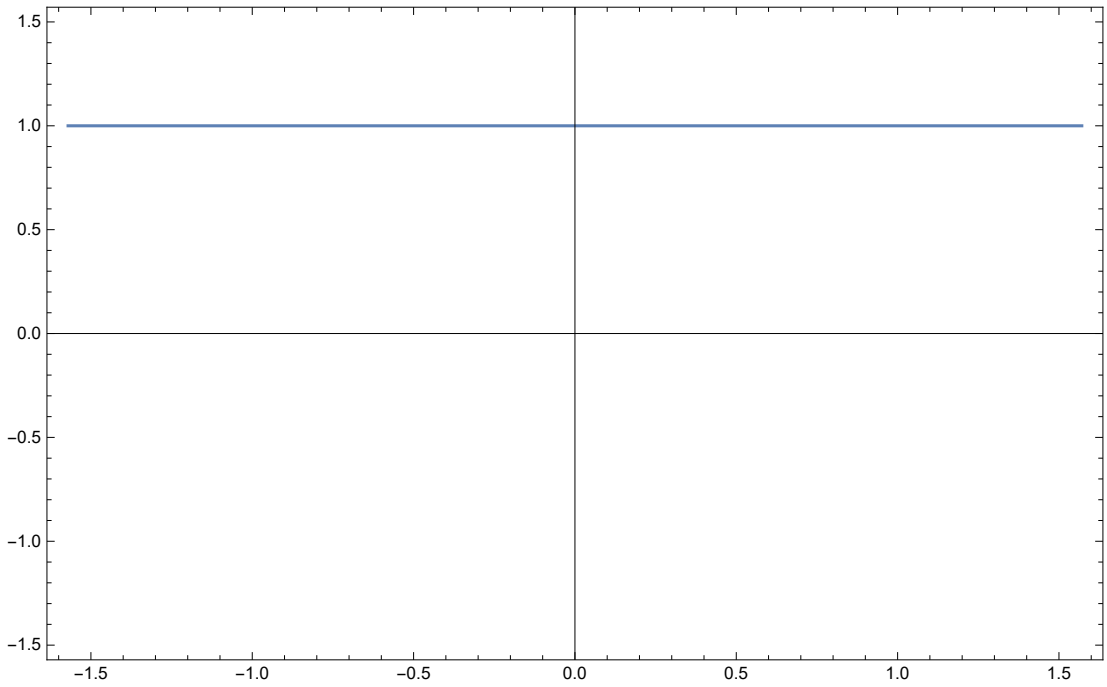
Step 3 : Transformed Function Chart

Please Read The Infinity Plot And It,s Applications Theory



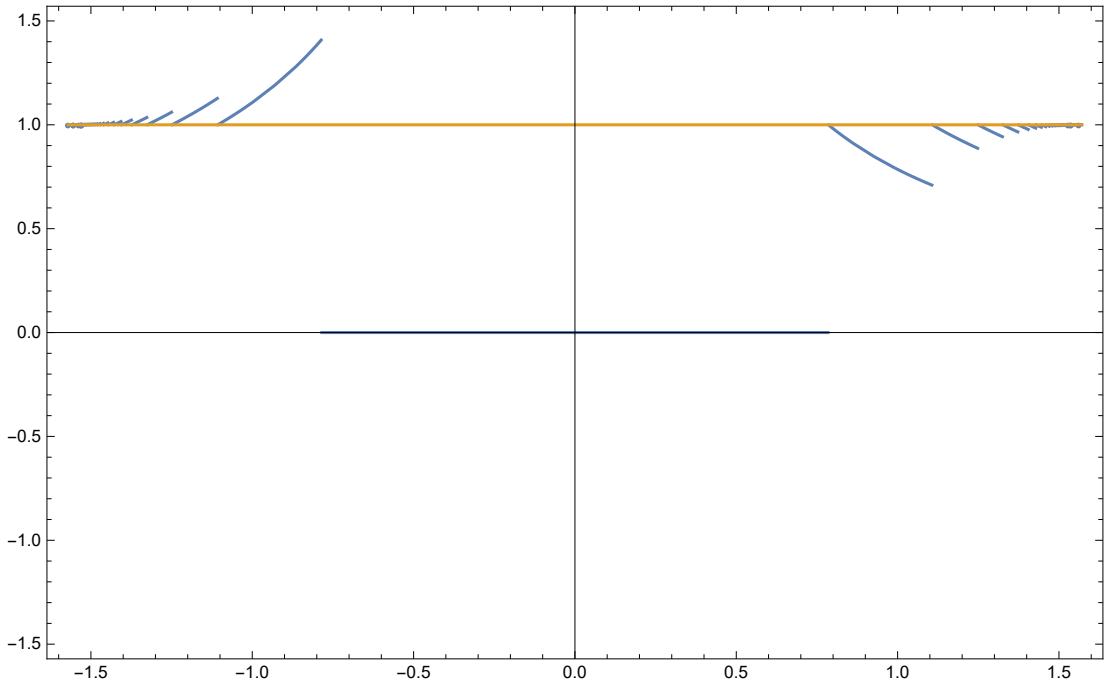
Step 4 : The Y=(Limit Answer) Chart.

Please Read The Infinity Plot And It,s Applications Theory



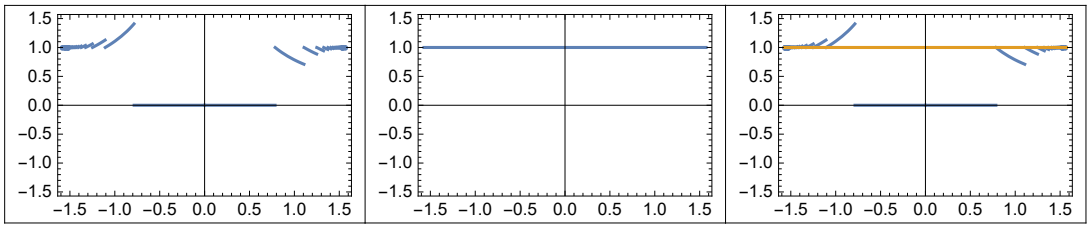
Step 5 : Ploting The Two Previous Functions On The Same Graphics Row.

Please Read The Infinity Plot And It,s Applications Theory



Step 6 : Ploting The Transformed Function And The
Y=(Limit Answer) And Two Previous Functions On The Same Plot.

Please Read The Infinity Plot And It,s Applications Theory



Step 7 : Printing The Result of Limit[$\frac{Intg[x]}{x}$,x→+Infinity] Using New Methods .

1.

In[49]:=
```
Text[
 Style["----------------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD", Green, 30]]
Text[
 Style["----------------------------------------------------------------", Green, 14]]
Text[Style["----------------------------------------------------------------",
  Blue, 14]]
Text[Style["Limit Revolution , Second Example", Blue, 30]]
Text[
 Style["----------------------------------------------------------------", Blue, 14]]

Text[Style["Step 1 : Defining The Integer Part Function.", Blue, 14]]
```

```
Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]

Text[
 Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.", Blue, 14]]

H = Function[{x}, Intg[x]^x / x^x]

Text[Style["Step 3 : Transformed Function Chart", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P001 = Plot[{((ArcTan[Intg[Tan[x]]]^ArcTan[Tan[x]])^ArcTan[Tan[x]]) /
     (ArcTan[Tan[x]]^ArcTan[Tan[x]])}, {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style["Step 4 : The Y=(Limit Answer) Chart.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P002 = Plot[{((ArcTan[Intg[Tan[Pi/2 - 0.01 * 10^-305]]]^
        ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])^ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])) /
     (ArcTan[Tan[Pi/2 - 0.01 * 10^-305]]^ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style["Step 5 : Ploting The Two Previous Functions On The Same Plot.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

P003 =
 Plot[{((ArcTan[Intg[Tan[x]]]^ArcTan[Tan[x]])^ArcTan[Tan[x]]) /
     (ArcTan[Tan[x]]^ArcTan[Tan[x]]),
    ((ArcTan[Intg[Tan[Pi/2 - 0.01 * 10^-305]]]^ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])^
       ArcTan[Tan[Pi/2 - 0.01 * 10^-305]]) /
     (ArcTan[Tan[Pi/2 - 0.01 * 10^-305]]^ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style[
  "Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two Previous
    Functions On The Same Graphics Row.", Blue, 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory", Blue, 14]]

GraphicsRow[{P001, P002, P003}, Frame → All]

Text[Style[
  "Step 7 : Printing The Result of Limit[Intg[x]^x / x^x, x→+Infinity] Using New Methods .",
  Blue, 14]]

((ArcTan[Intg[Tan[Pi/2 - 0.01 * 10^-305]]]^ArcTan[Tan[Pi/2 - 0.01 * 10^-305]])^
```

```
    ArcTan[Tan[Pi / 2 - 0.01 * 10^-305]]) /
  (ArcTan[Tan[Pi / 2 - 0.01 * 10^-305]]^ArcTan[Tan[Pi / 2 - 0.01 * 10^-305]])
```

Out[49]= ----------

Out[50]= In The Name Of GOD

Out[51]= ----------

Out[52]= ----------

Out[53]= Limit Revolution , Second Example

Out[54]= ----------

Out[55]= Step 1 : Defining The Integer Part Function.

Out[56]= `Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]`

Out[57]= Step 2 : Defining The Main Function That We Want To Find It,s Limit.

Out[58]= $\text{Function}\left[\{x\}, \frac{\text{Intg}[x]^{x^x}}{x^x}\right]$

Out[59]= Step 3 : Transformed Function Chart

Out[60]= Please Read The Infinity Plot And It,s Applications Theory

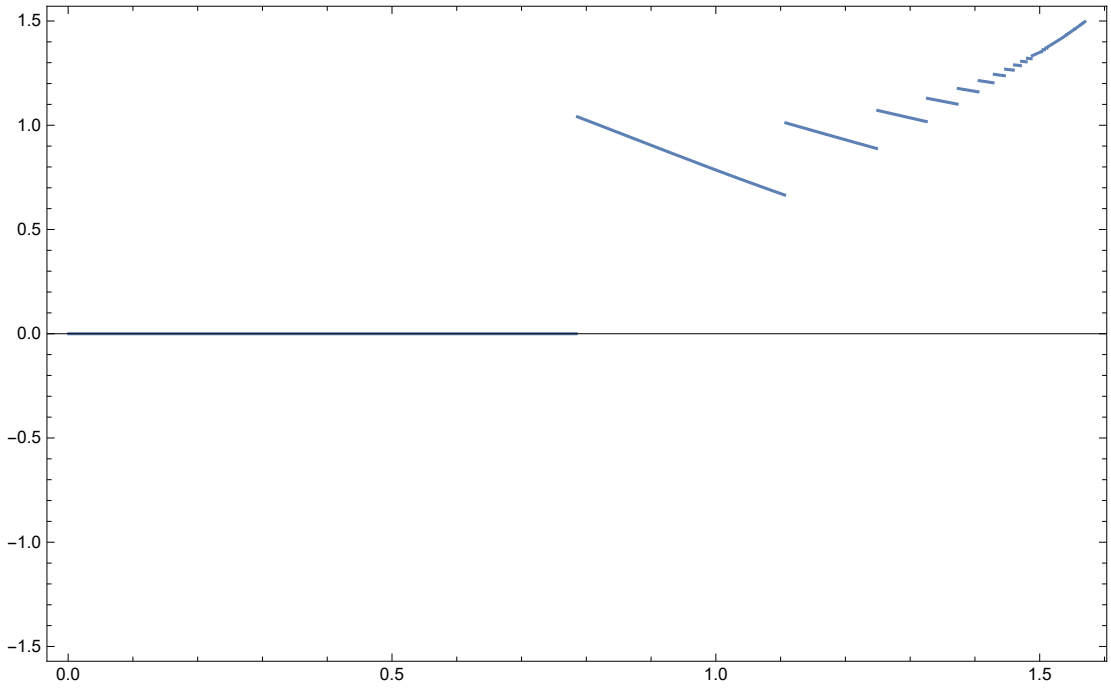
... Power: Infinite expression $\frac{1}{0^{0.739635}}$ encountered.

... Power: Infinite expression $\frac{1}{0^{0.677859}}$ encountered.

... Power: Infinite expression $\frac{1}{0^{0.610897}}$ encountered.

... General: Further output of Power::infy will be suppressed during this calculation.

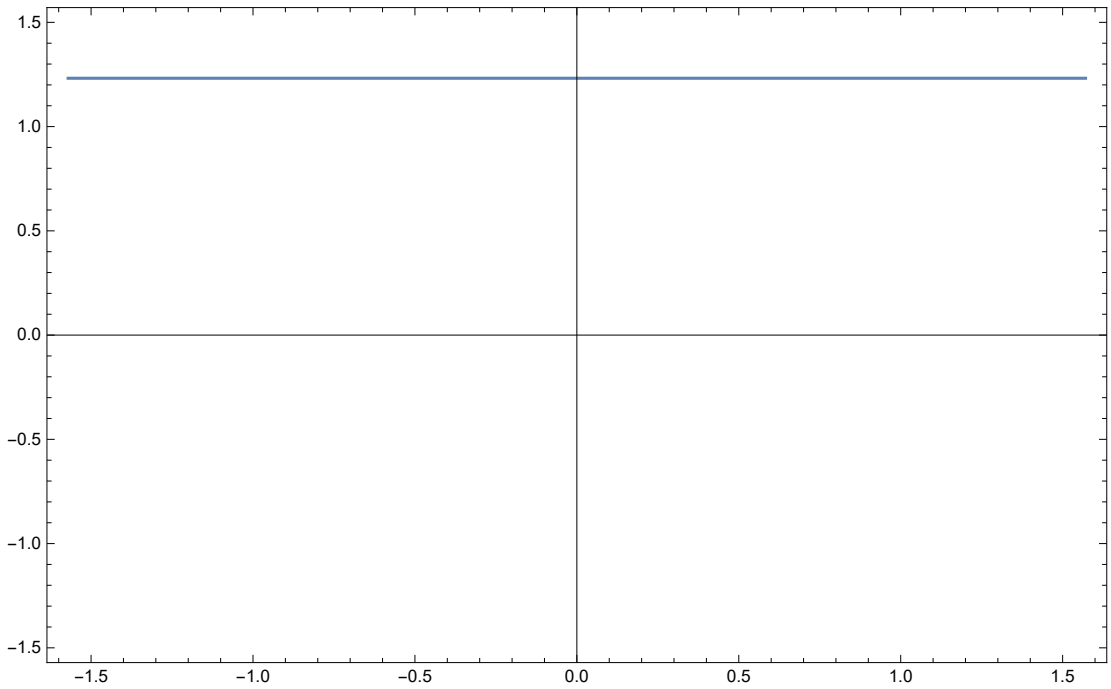
Out[61]=



Out[62]= Step 4 : The Y=(Limit Answer) Chart.

Out[63]= Please Read The Infinity Plot And It,s Applications Theory

Out[64]=



Out[65]= Step 5 : Ploting The Two Previous Functions On The Same Plot.

Out[66]= Please Read The Infinity Plot And It,s Applications Theory

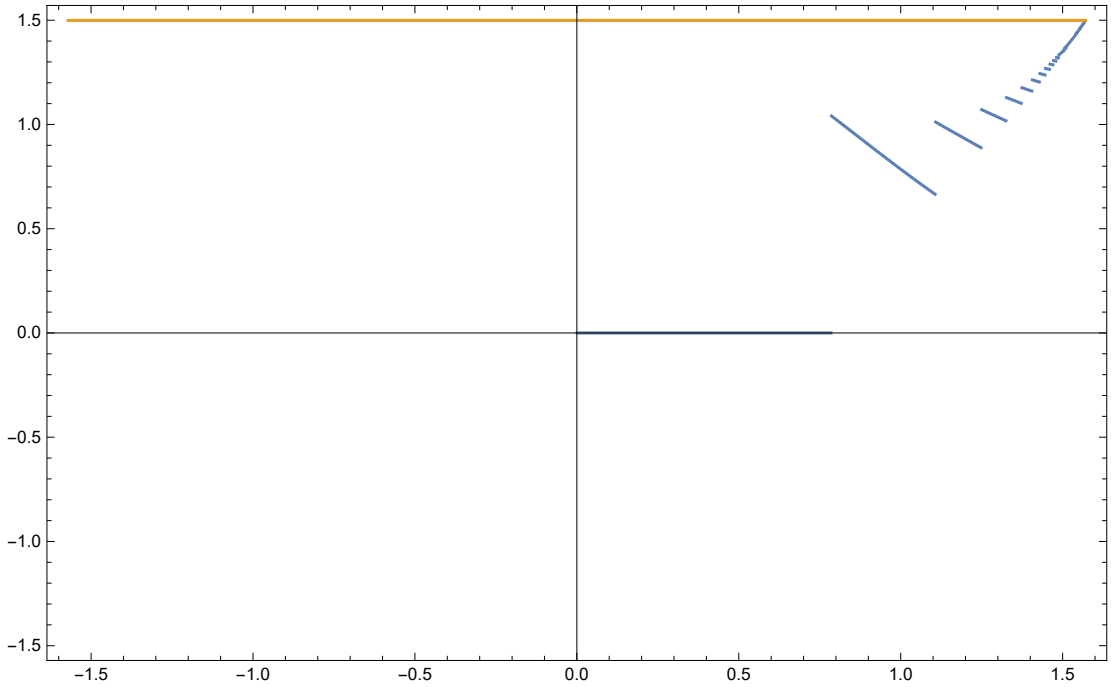
Power: Infinite expression $\frac{1}{0^{0.739635}}$ encountered.

Power: Infinite expression $\frac{1}{0^{0.677859}}$ encountered.

Power: Infinite expression $\frac{1}{0^{0.610897}}$ encountered.

General: Further output of Power::infy will be suppressed during this calculation.

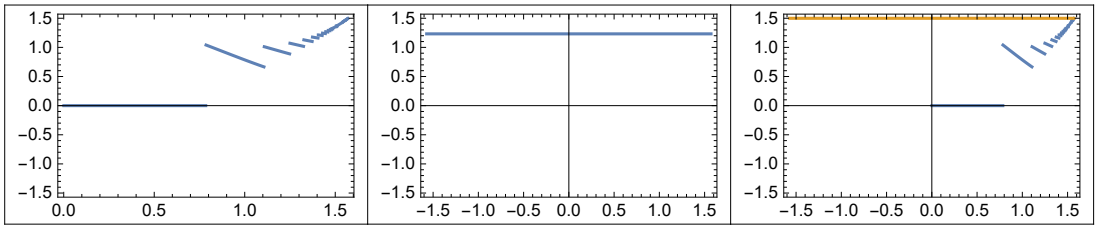
Out[67]=



Out[68]= Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two Previous Functions On The Same Graphics Row.

Out[69]= Please Read The Infinity Plot And It,s Applications Theory

Out[70]=



Out[71]= Step 7 : Printing The Result of Limit[$\frac{\text{Intg}[x]^{x^x}}{x^x}$,x→+Infinity] Using New Methods .

Out[72]= 1.49914