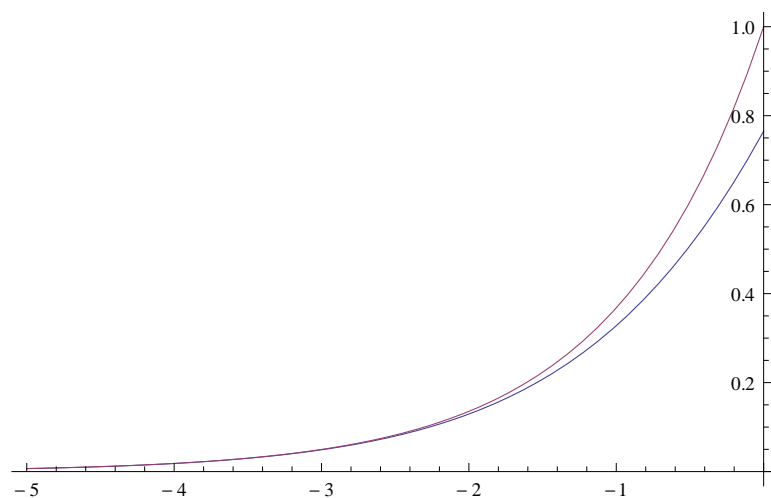


```
f[x_] := Integrate[y ^ 2 / (Exp[y ^ 2 - x] - 1), {y, 0, Infinity}]
```

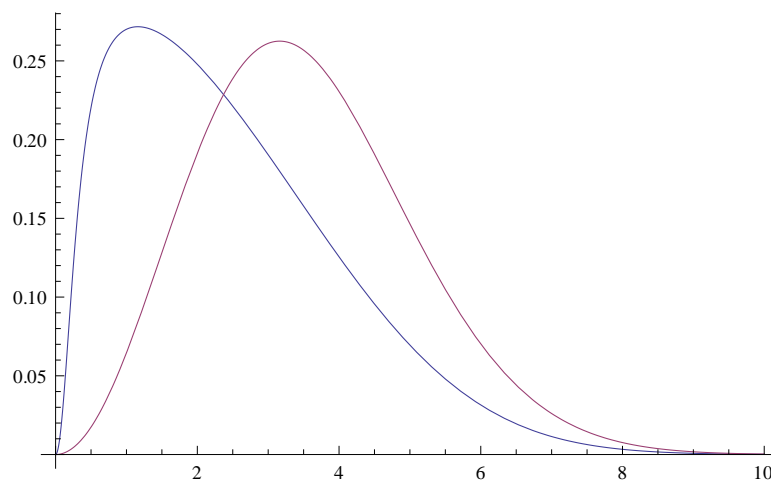
```
f[x]
```

$$\frac{1}{4} \sqrt{\pi} \operatorname{PolyLog}\left[\frac{3}{2}, e^x\right]$$

```
Plot[{-PolyLog[3/2, -Exp[x]], Exp[x]}, {x, -5, 0}, PlotRange -> All]
```



```
kT = 10; n = -0.01; Plot[{v ^ 2 / (Exp[v ^ 2 / kT - n] - 1) /  
  NIntegrate[V ^ 2 / (Exp[V ^ 2 / kT - n] - 1), {V, 0, Infinity}],  
  v ^ 2 Exp[-v ^ 2 / kT] / NIntegrate[V ^ 2 Exp[-V ^ 2 / kT], {V, 0, Infinity}]},  
  {v, 0, 10}, PlotRange -> All]
```



```

kT = 10; n = -0.01; Plot[{v ^ 2 / (Exp[ v ^ 2 / kT - n] + 1) /
  NIntegrate[V ^ 2 / (Exp[ V ^ 2 / kT - n] + 1), {V, 0, Infinity}],
  v ^ 2 Exp[-v ^ 2 / kT] / NIntegrate[V ^ 2 Exp[-V ^ 2 / kT], {V, 0, Infinity}]},
{v, 0, 10}, PlotRange -> All]

```

