

```

[> restart;
[> f:= x-> ln(x+1)/x;

$$f := x \rightarrow \frac{\ln(x + 1)}{x}$$

[> f_ := diff(f(x),x);

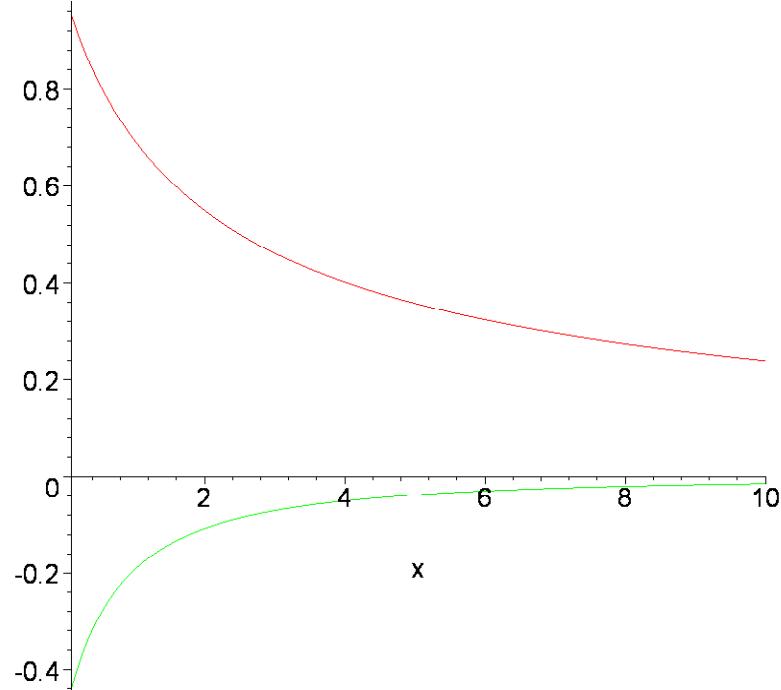
$$f_- := \frac{1}{(x + 1)x} - \frac{\ln(x + 1)}{x^2}$$

[> g:=unapply(f_,x);

$$g := x \rightarrow \frac{1}{(x + 1)x} - \frac{\ln(x + 1)}{x^2}$$

[> plot([f(x),g(x)],x=0.1...10,legend=[ "f(x)", "g(x)"]);

```



f(x)

g(x)

```
> Limit(g(x),x=infinity) = limit(g(x),x=infinity);
```

$$\lim_{x \rightarrow \infty} \frac{1}{(x + 1)x} - \frac{\ln(x + 1)}{x^2} = 0$$

```
[>
```