

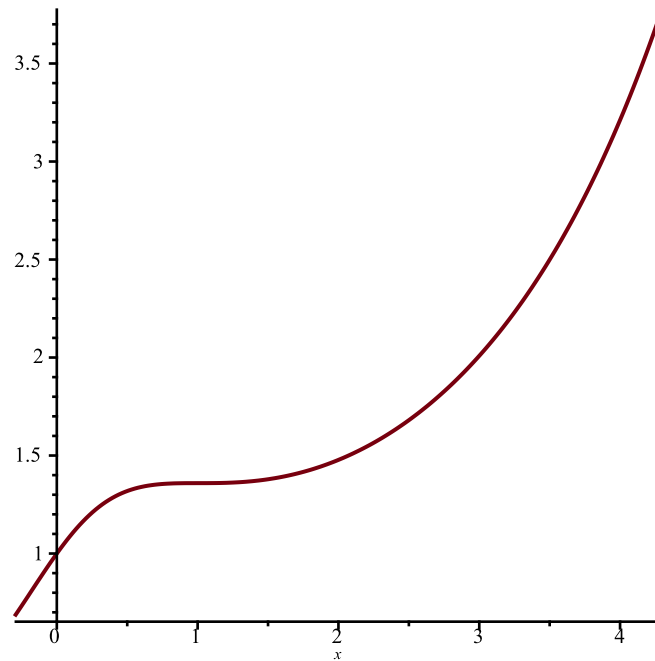
hr19ut A3Q18

```
> f:=x->exp(x)/(1+x^2)
```

$$f := x \mapsto \frac{e^x}{1+x^2}$$

(1)

```
> plot(f(x), x=-0.3..4.3);
```



```
> f(0);
```

$$1$$

(2)

```
> f(4);
```

$$\frac{e^4}{17}$$

(3)

```
> evalf(f(4));
```

$$3.211655884$$

(4)

```
> diff(f(x), x);
```

$$\frac{e^x}{x^2+1} - \frac{2e^x x}{(x^2+1)^2}$$

(5)

```
> solve(diff(f(x), x)=0, x);
```

$$1$$

(6)