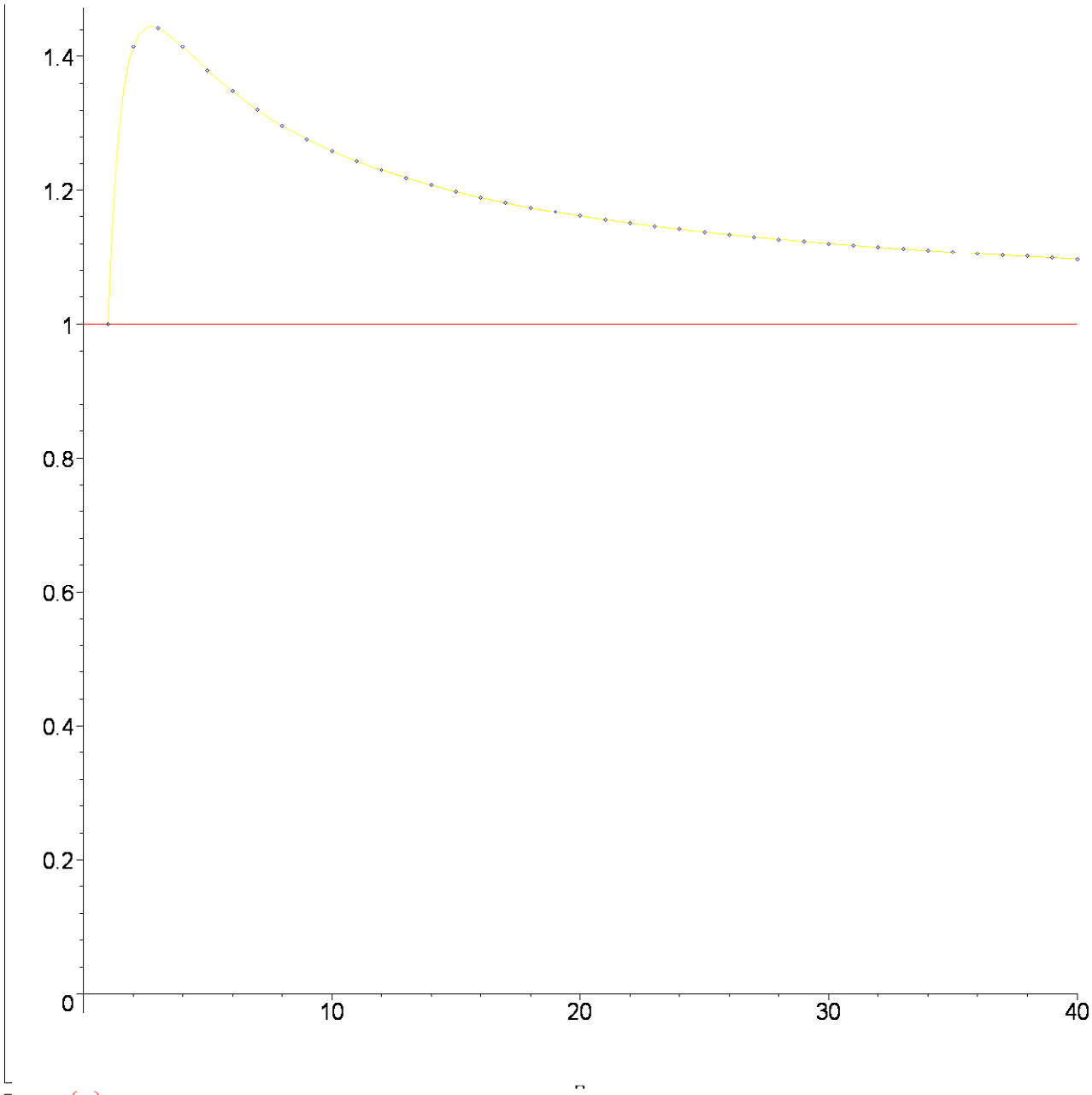
Hezké posloupnosti

```
> with(plots):
```

$$n^{\left(\frac{1}{n}\right)}$$

konverguje k jedničce

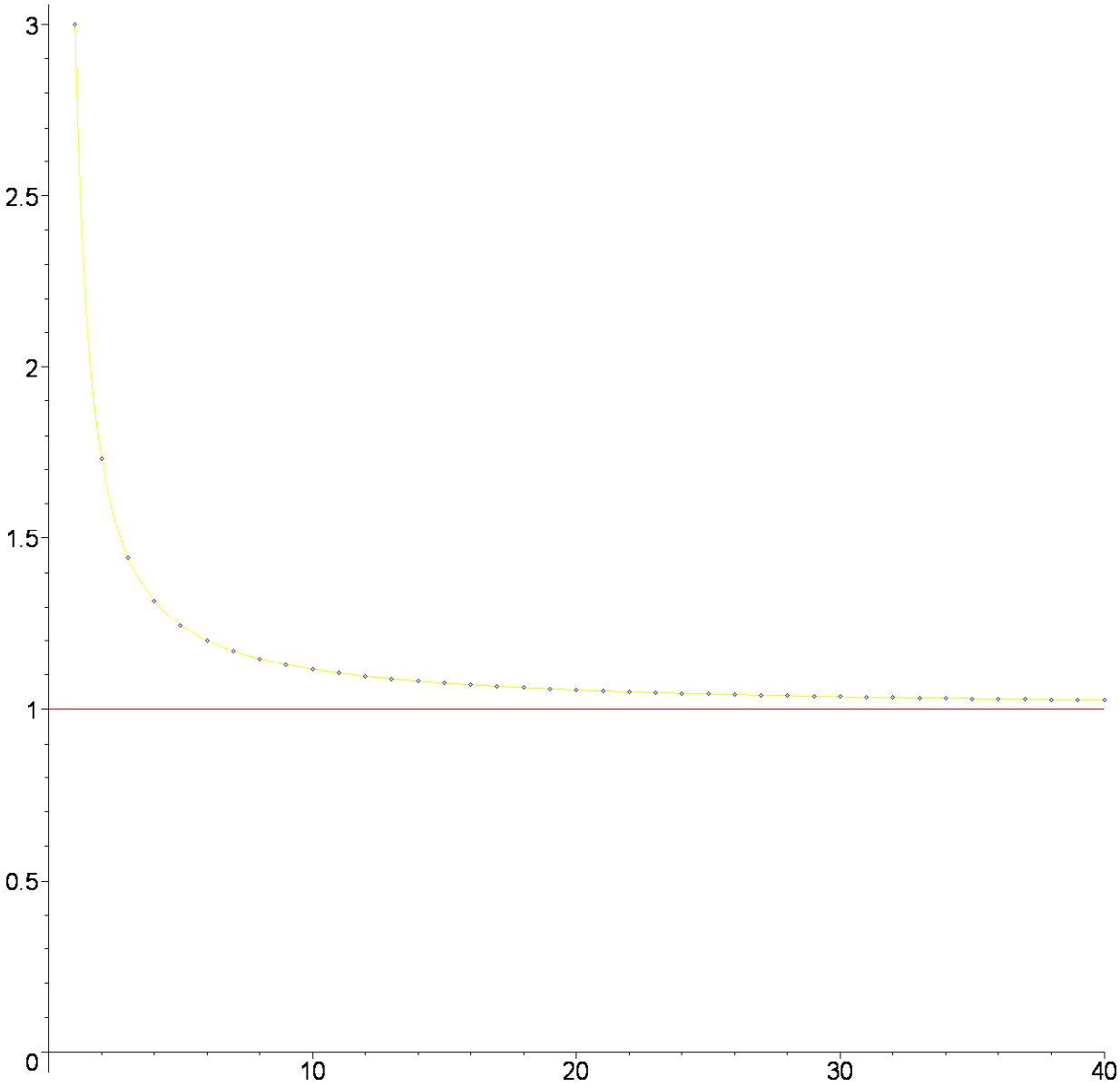
```
>
Warning, premature end of input
> a:=plot(n^(1/n), n=1..40,style=line,color=yellow,thickness=1):
> b:=plot(1, n=0..40,style=line):
> c:=plot(0, n=0..40,style=line):
> d:=plot([seq([n,n^(1/n)],
  n=1..40)],style=point,color=blue,thickness=1):
> e:=display(d,style=point,color=green):
> display(a,b,c,d);
```




```
> 3^(1/n)
```

konverguje k jedničce

```
>
Warning, premature end of input
> a:=plot(3^(1/n), n=1..40,style=line,color=yellow,thickness=1):
> b:=plot(1, n=0..40,style=line):
> c:=plot(0, n=0..40,style=line):
> d:=plot([seq([n,3^(1/n)],
  n=1..40)],style=point,color=blue,thickness=1):
> e:=display(d,style=point,color=green):
> display(a,b,c,d);
```



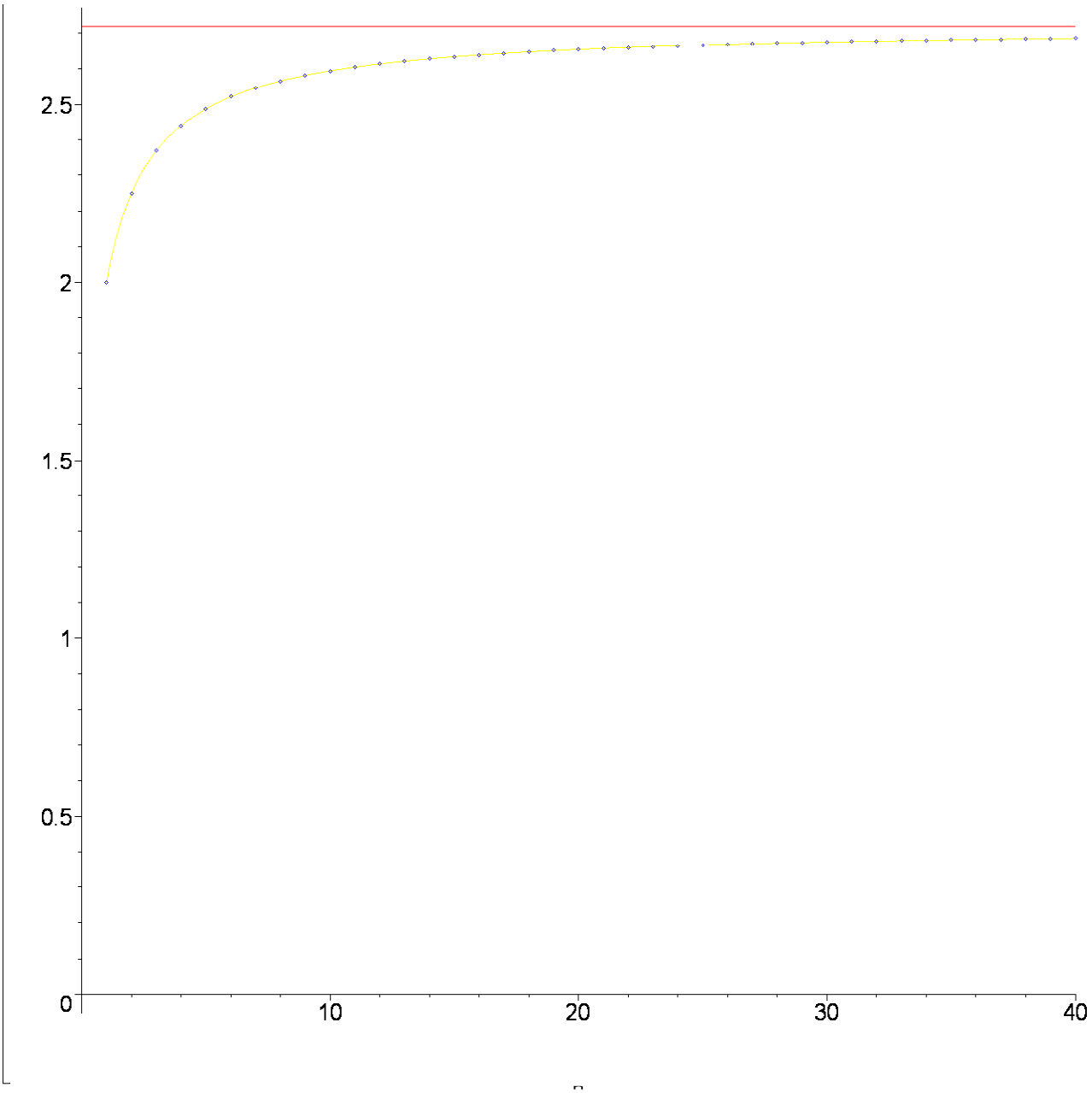
> $\left(1+\frac{1}{n}\right)^n$

konverguje k e

>

Warning, premature end of input

```
> a:=plot((1+1/n)^n, n=1..40,style=line,color=yellow,thickness=1):
> b:=plot(exp(1), n=0..40,style=line):
> c:=plot(0, n=0..40,style=line):
> d:=plot([seq([n,(1+1/n)^n],
  n=1..40)],style=point,color=blue,thickness=1):
> e:=display(d,style=point,color=green):
> display(a,b,c,d);
```




```
> (1+1/n)^(n+1)
```

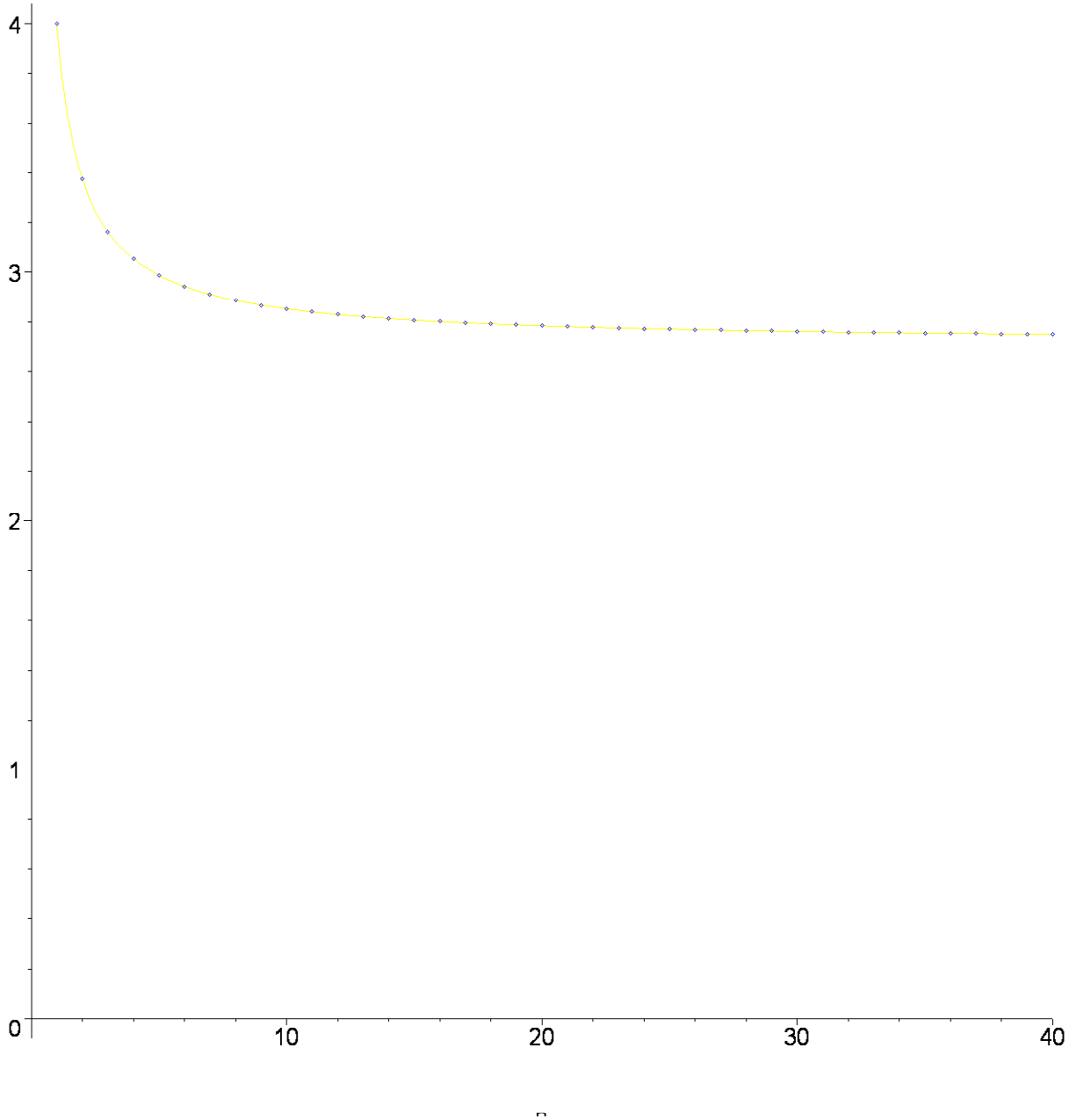
konverguje k e

```
>
>
```

Warning, premature end of input

```
> aa:=plot((1+1/n)^(n+1),
  n=1..40,style=line,color=yellow,thickness=1):
> bb:=plot(exp(1), n=0..40,style=line):
> cc:=plot(0, n=0..40,style=line):
> dd:=plot([seq([n,(1+1/n)^(n+1)],
  n=1..40)],style=point,color=blue,thickness=1):
> ee:=display(dd,style=point,color=green):
```

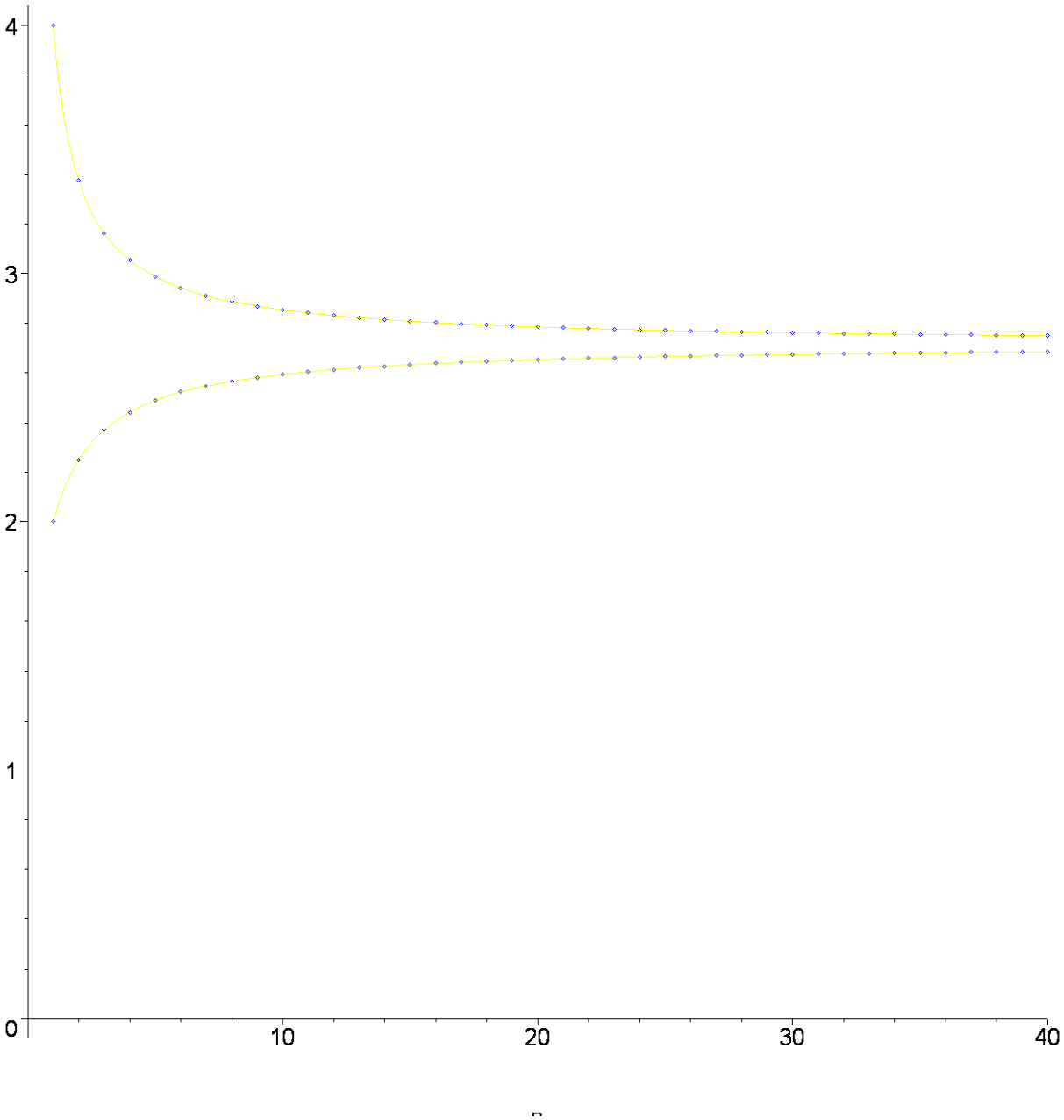
```
> display(aa,bb,cc,dd);
```




```
>
```

$$\left(1+\frac{1}{n}\right)^{n} \quad < \quad \left(1+\frac{1}{n}\right)^{(n+1)}$$

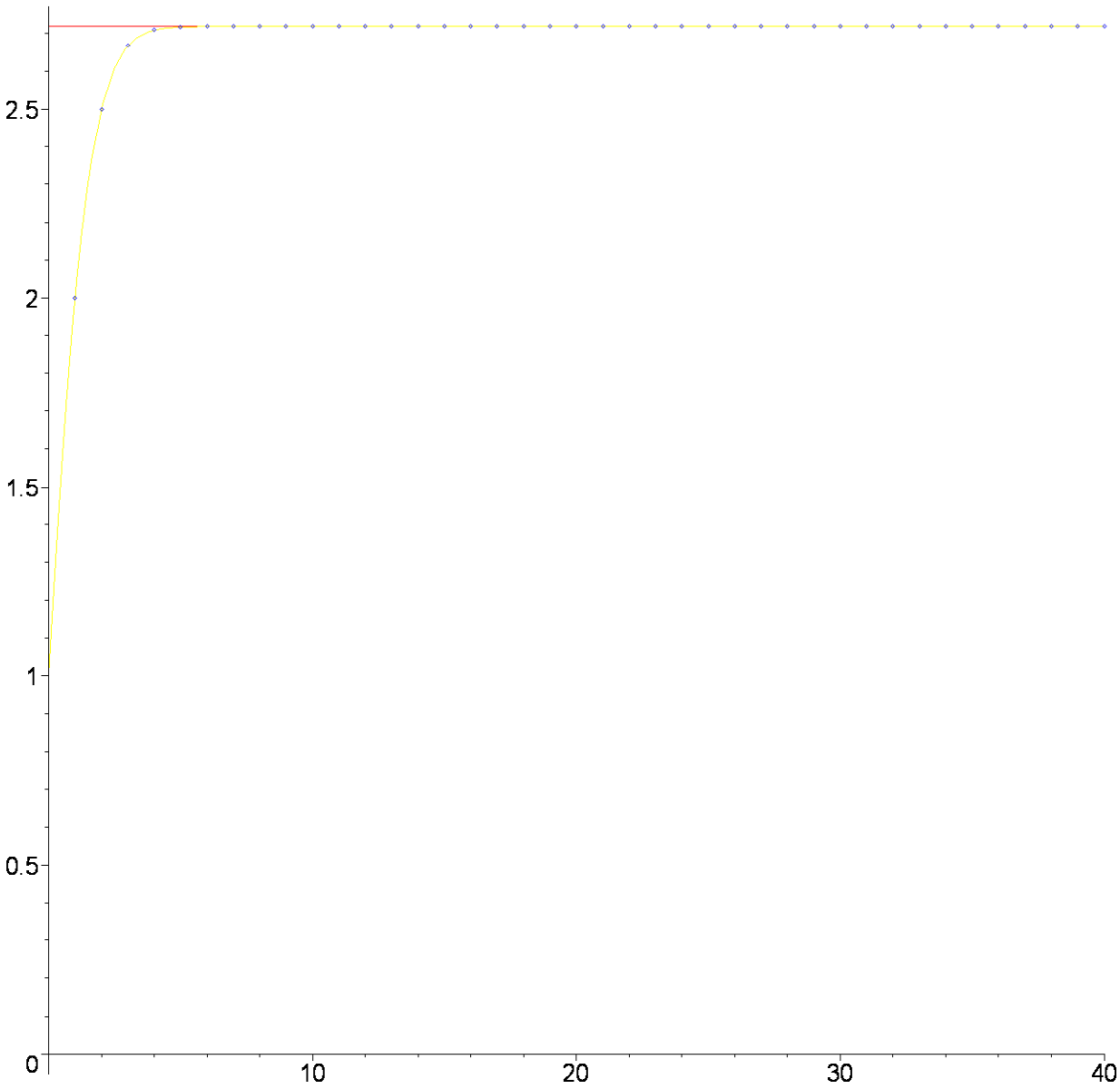
```
Error, ambiguous use of `^`, please use parentheses
> display(a,b,c,d,aa,bb,cc,dd);
```




```
>
>
```

$$\sum_{k=0}^{n} \frac{1}{k!} < e$$

```
>
> a2:=plot(sum(1/k!,k=0..n),
  n=0..40,style=line,color=yellow,thickness=1):
> b2:=plot(exp(1), n=0..40,style=line):
> c2:=plot(0, n=0..40,style=line):
> d2:=plot([seq([n,sum(1/k!,k=0..n)],
  n=1..40)],style=point,color=blue,thickness=1):
> e2:=display(d2,style=point,color=green):
> display(a2,b2,c2,d2);
```




```
> (1+1/n)^n a sum(1/k!,k = 0 .. n) a (1+1/n)^(n+1)
```

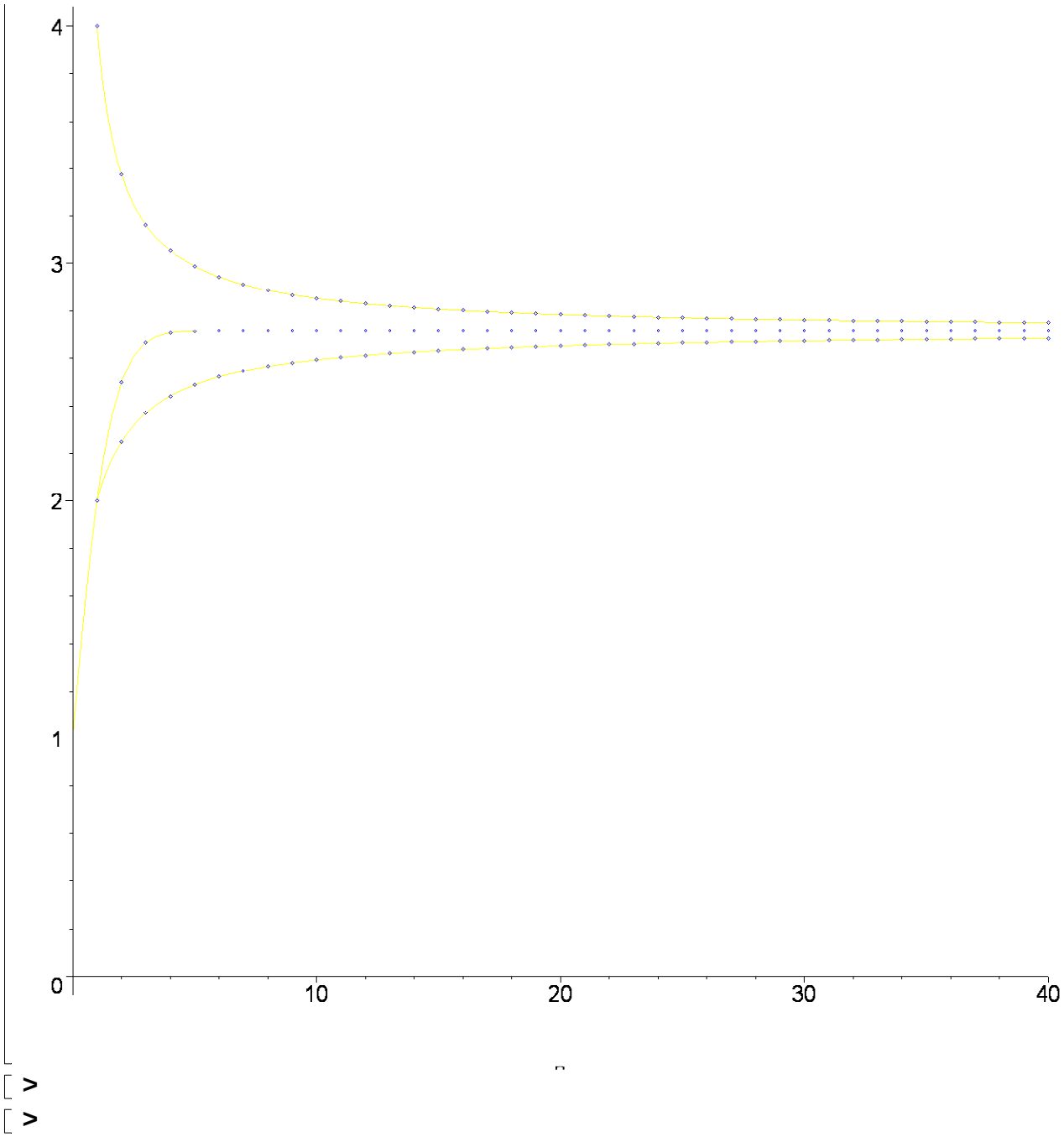
Error, missing operator or `;`

```
>
>
```

$$\left(1+\frac{1}{n}\right)^{n} < \sum_{k=0}^{n}\frac{1}{k!} < e < \left(1+\frac{1}{n}\right)^{(n+1)}$$

Error, missing operator or `;`

```
>
> display(a,b,c,d,aa,bb,cc,dd,a2,b2,c2,d2);
```



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