

Numericke a presne scitani rad:

```
> sum(1/(n^2-1), n=2..infinity);
```

$$\frac{3}{4}$$

```
> sum(x^(-2*n), n=1..infinity);
```

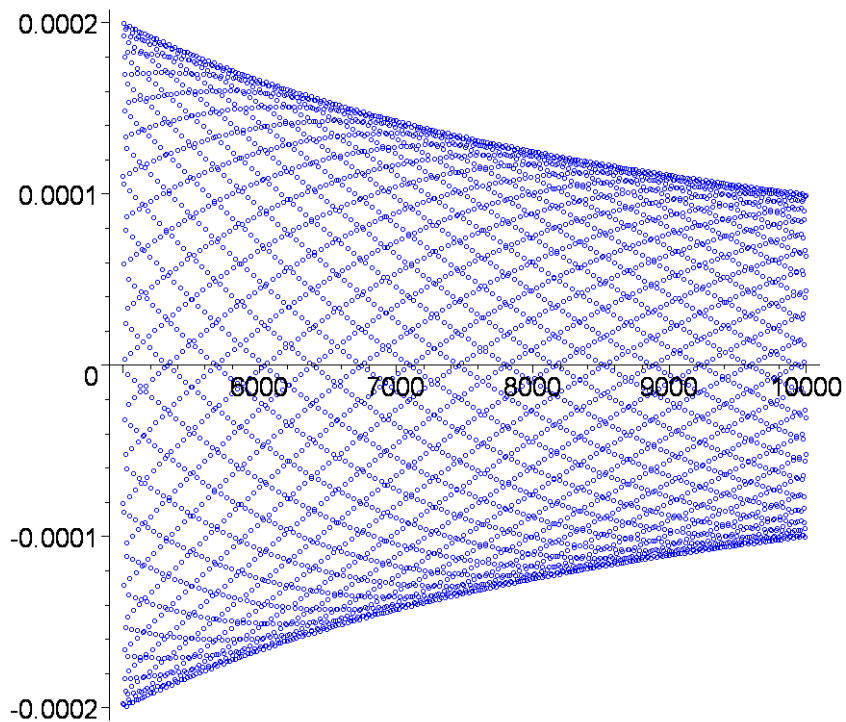
$$\frac{1}{x^2 - 1}$$

```
> rada:=n->sin(n)/n;
```

$$rada := n \rightarrow \frac{\sin(n)}{n}$$

```
> body := [seq([i,rada(i)],i=5000..10000)];
```

```
> plot(body, style=POINT, color=blue,  
symbol=circle,symbolsize=10);
```



```
>
```

```
> pocet:=10000;
```

$$pocet := 10000$$

```
> numericky:=evalf(sum(rada(i), i=1..pocet));
```

$$numericky := 1.070868180$$

```
> presne:=sum(rada(n), n=1..infinity);
```

$$presne := \frac{1}{2} \arctan\left(\frac{\sin(1)}{1 - \cos(1)}\right) - \frac{1}{2} \arctan\left(\frac{\sin(1)}{-1 + \cos(1)}\right)$$

```
> evalf(presne);
```

```
[
    1.070796327
[ > chyba:=evalf(numericky-presne);
    chyba := 0.0000718530
[ >
[ > pocet:=20000;
    pocet := 20000
[ > chyba:=evalf(evalf(sum(rada(i), i=1..pocet))-presne);
    chyba := -0.0000226450
[ >
[ >
[ >
[ >
[ > Credit:= "I&C, p. 121" ;
    Credit := "I&C, p. 121"
[ >
```