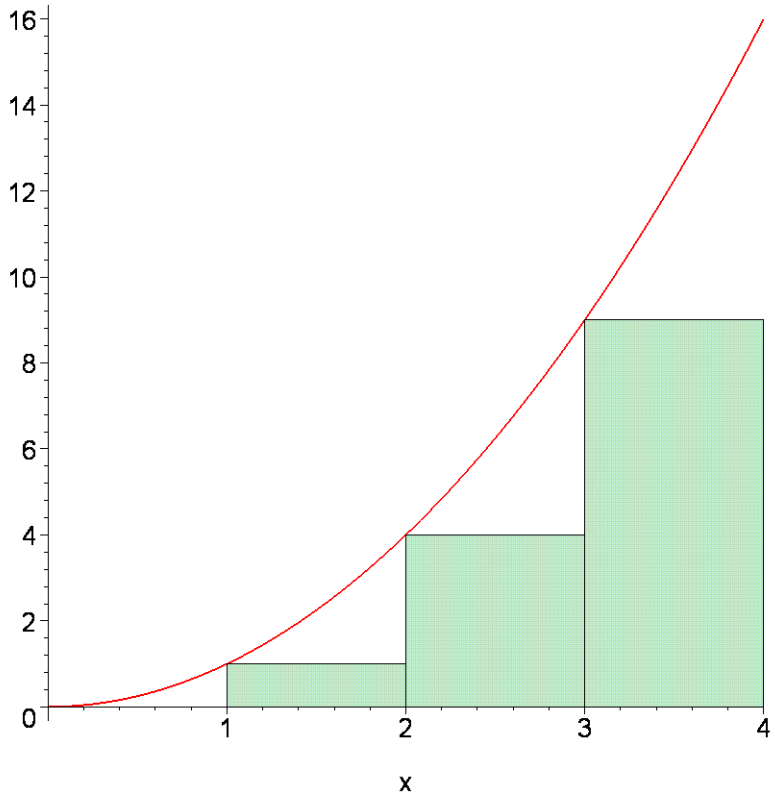
Riemanuv integral pomoci limit:

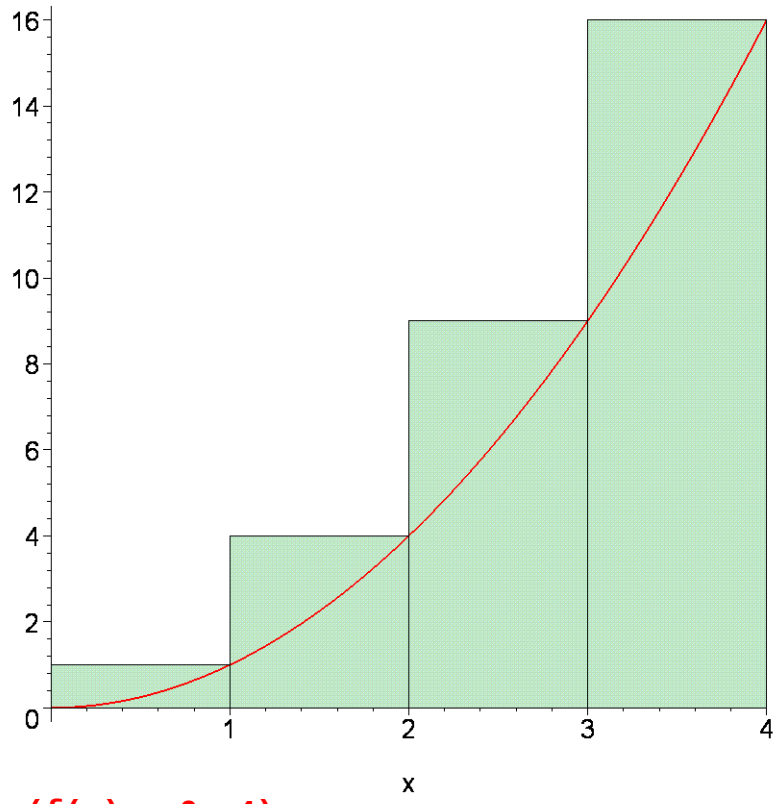
```
> with(student):
> with(Student[Calculus1]):
> f:=x->x^2;
```

$$f := x \to x^2$$

```
> leftbox(f(x),x=0..4);
```




```
> rightbox(f(x),x=0..4);
```




```
> S_i:=leftsum(f(x),x=0..4);
```

$$S\_i := \sum_{i=0}^{3} i^2$$

```
> evala(value(S_i));
```

$$14$$

```
> S_s:=value(rightsum(f(x),x=0..4,n));
```

$$S\_s := \frac{4\left(\frac{16\,(n+1)^3}{3\,n^2} - \frac{8\,(n+1)^2}{n^2} + \frac{8\,(n+1)}{3\,n^2}\right)}{n}$$

```
> limit(S_s, n=infinity);
```

$$\frac{64}{3}$$

```
> SR_i:=RiemannSum(f(x),x=0..4,method=left,partition=25);
```

$$SR\_i := \frac{12544}{625}$$

```
> SR_s:=RiemannSum(f(x),x=0..4,method=right,partition=n);
```

$$SR\_s := \frac{4\left(\sum_{i=1}^{n}\left(\frac{16\,i^2}{n^2}\right)\right)}{n}$$

```
> limit(SR_s, n=infinity);
```

$$\frac{64}{3}$$

```
>
```

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>
>
>
>
>
> Credit:= "I&C, p. 116" ;
```