

□ Zadaci 5

└ 1

```
(%i1) integrate(cos(2*x)/(sin(x)^2*cos(x)^2),x);  
(%o1) -tan(x)- $\frac{1}{\tan(x)}$ 
```

└ 2

```
(%i2) integrate((sin(x/2)-cos(x/2))^2,x);  
(%o2) 2 \cos\left(\frac{x}{2}\right)^2 + x
```

└ 3

```
(%i3) integrate((x^2+1)/(2*x),x,1,%e);  
(%o3)  $\frac{\frac{\%e^2}{2} + \frac{1}{2}}{2}$ 
```

```
(%i4) ratsimp(%);  
(%o4)  $\frac{\%e^2 + 1}{4}$ 
```

└ 4

```
(%i5) integrate(x*sin(x),x,3,9);  
(%o5) \sin(9) - 9 \cos(9) - \sin(3) + 3 \cos(3)
```

└ 5

```
(%i6) integrate(x*%e^(-x^2),x,0,inf);  
(%o6)  $\frac{1}{2}$ 
```

└ 6

```
(%i7) integrate(2*x/(1+x^2)^2,x,1,inf);  
(%o7)  $\frac{1}{2}$ 
```