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```
syms x y
f = (sin(x.*y)+cos(x.*y))./(x.^2+y.^2+1);
```

a integration

```
int(f,x,0,5)
int(f,y,0,5)
int(int(f,x,0,5),y,0,5)
```

```
ans =
```

```
int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), x, 0, 5)
```

```
ans =
```

```
int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), y, 0, 5)
```

```
ans =
```

```
int(int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), x, 0, 5), y, 0, 5)
```

b eval

```
eval(int(f,x,0,5))
eval(int(f,y,0,5))
eval(int(int(f,x,0,5),y,0,5))
% This function is not integrable. The eval returns the input
```

```
ans =
```

```
int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), x, 0, 5)
```

```
ans =
```

```
int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), y, 0, 5)
```

```
ans =
```

```
int(int((cos(x*y) + sin(x*y))/(x^2 + y^2 + 1), x, 0, 5), y, 0, 5)
```

c integral2

```
f = @(x,y) sin(x.*y)+cos(x.*y)./x.^2+y.^2+1;  
integral2(f,0,5,0,5)
```

Warning: Reached the maximum number of function evaluations (10000). The result fails the global error test.

ans =

1.3943e+13