```
> restart;
> assume(a>0,x>0);
> int(int(x^2/y^2,y=1/x..x),x=1..a);S:=%:
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{1}$$

```
> T:=(1):
> subs(a=2,(1));
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{2}$$

```
> subs(a=2,S);
```

$$\frac{9}{4} \tag{3}$$

```
> subs(a=2,T);
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{4}$$

```
> int(int(x^2/y^2,y=1/x..x),x=1..a);
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{5}$$

```
> subs(a=2,%);
```

$$\frac{9}{4} \tag{6}$$

```
> subs(`a~`=2,(1));
```

$$\frac{9}{4} \tag{7}$$

```
> int(int(x^2/y^2,y=1/x..x),x=1..a);
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{8}$$

```
> subs(`a~`=2,%);
```

$$\frac{1}{4}\,a\sim^4 + \frac{1}{4} - \frac{1}{2}\,a\sim^2 \tag{9}$$