

```
> restart
> interface(version)
Standard Worksheet Interface, Maple 2018.2, Windows 10, November 16 2018 Build ID
1362973
```

```
> integrate(exp(-x^2) * erf(x) * sin(x), x = 0 ..infinity)

$$\int_0^{\infty} e^{-x^2} \operatorname{erf}(x) \sin(x) dx$$

```

```
> Digits := 100;
Digits := 100
```

```
> raw_integral := proc(a, b, s) evalf(Integrate(exp(-a^2 * x^2) * erf(b * x) * sin(s * x), x = 0
..infinity)) end proc;
raw_integral := proc(a, b, s)
evalf(Integrate(exp(-a^2 * x^2) * erf(b * x) * sin(s * x), x = 0 ..infinity))
end proc
```

```
> val_integral := proc(a, b, s) evalf( (sqrt(Pi) / (2 * a) * exp(-s^2 / (4 * a^2)) * erfi( (b * s) / (2 * a * sqrt(a^2 + b^2)) ) ) end
proc;
val_integral := proc(a, b, s)
evalf(1/2 * sqrt(Pi) * exp(-1/4 * s^2 / a^2) * erfi(1/2 * b * s / (a * sqrt(b^2 + a^2)))
/a)
end proc
```

```
> raw_integral(1, 2, 3)
0.3012568985913207571531926401970484051891023500066760855123282167951683211293\
235655017234640615745872
```

```
> val_integral(1, 2, 3)
0.3012568985913207571531926401970484051891023500066760855123282167951683211293\
235655017234640615745870
```

```
> raw_integral(Pi, 1/2, 1 - I)
0.0083525201742080697134431833611020766745377148917209161766426569241511866846\
64316073324662312888304359
- 0.0075527138573741988856452167204387753618978479627385883060981454622503\
11468330933573298258933095844605 I
```

```
> val_integral(Pi, 1/2, 1 - I)
0.0083525201742080697134431833611020766745377148917209161766426569241511866846\
64316073324662312888304360
- 0.0075527138573741988856452167204387753618978479627385883060981454622503\
11468330933573298258933095844605 I
```

```
> raw_integral(Pi + I, 1/2, 1 - I)
-0.00095349381871506004812813029468198644143231759844027747148162572165765871\
```

02843062905827797322717003594

– 0.0099888499877889176846350254930818348870052351843113278954604104715558\
91228774829861109902713438102420 I

> $val_integral\left(\text{Pi} + I, \frac{1}{2}, 1 - I\right)$

–0.00095349381871506004812813029468198644143231759844027747148162572165765871\ (11)

02843062905827797322717003580

– 0.0099888499877889176846350254930818348870052351843113278954604104715558\
91228774829861109902713438102420 I

>