```
> Digits := 24;
```

$$Digits := 24 \quad (1)$$

```
> var0 := evalf(Pi);
```

$$var0 := 3.14159265358979323846264 \quad (2)$$

```
> var1 := var0/2.0;
```

$$var1 := 1.57079632679489661923132 \quad (3)$$

```
> var2 := var1/2.0;
```

$$var2 := 0.78539816339744830961566 \quad (4)$$

```
> evalf(sin(var0));
```

$$3.38327950288419716939938\ 10^{-24} \quad (5)$$

```
> evalf(sin(var1));
```

$$1.00000000000000000000000 \quad (6)$$

```
> evalf(sin(var2));
```

$$0.70710678118654752440084 \quad (7)$$

```
> evalf(cos(var0));
```

$$-1.00000000000000000000000 \quad (8)$$

```
> evalf(cos(var1));
```

$$1.69163975144209858469969\ 10^{-24} \quad (9)$$

```
> evalf(cos(var2));
```

$$0.70710678118654752440085 \quad (10)$$

```
> evalf(tan(var0));
```

$$-3.38327950288419716939938\ 10^{-24} \quad (11)$$

```
> evalf(tan(var1));
```

$$5.91142410284172127530836\ 10^{23} \quad (12)$$

```
> starting_demo5 := 1.0;
```

$$starting\_demo5 := 1.0 \quad (13)$$

```
> evalf(tan(var1));
```

$$5.91142410284172127530836\ 10^{23} \quad (14)$$

```
> starting_demo6 := 1.0;
```

$$starting\_demo6 := 1.0 \quad (15)$$

```
> evalf(tan(var2));
```

$$0.99999999999999999999998 \quad (16)$$

```
> evalf(arctan(tan(var2)));
```

$$0.78539816339744830961566 \quad (17)$$

```
> starting_demo7 := 1.0;
```

$$starting\_demo7 := 1.0 \quad (18)$$

```
> var0 := 0.1;
```

$$var0 := 0.1 \quad (19)$$

```
> var1 := evalf(arcsin(var0));
```

$$var1 := 0.10016742116155979634552 \quad (20)$$

```
> var2 := evalf(sin(var1));
```

$$var2 := 0.099999999999999999999998 \quad (21)$$

```
> var1 := evalf(arccos(var0));
```

$$var1 := 1.4706289056333368228858 \quad (22)$$

```
> var2 := evalf(cos(var1));
```

$$var2 := 0.099999999999999999999985 \quad (23)$$

```
> var1 := evalf(arctan(var0));
```

$$var1 := 0.099668652491162027378446 1 \quad (24)$$

```
> var2 := evalf(tan(var1));
```

$$var2 := 0.10000000000000000000000 \quad (25)$$

```
> starting_demo8 := 1.0;
```

$$starting\_demo8 := 1.0 \quad (26)$$

```
> val0 := 0.1 + 0.2 I;
```

$$val0 := 0.1 + 0.2\,I \quad (27)$$

```
> val1 := sin(val0);
```

$$val1 := 0.10183674942129743126546 4 + 0.20033016114881569769300 5\,I \quad (28)$$

```
> val2 := arcsin(val1);
```

$$val2 := 0.099999999999999999999995 + 0.20000000000000000000000\,I \quad (29)$$

```
> val1 := cos(val0);
```

$$val1 := 1.014970670702622461714 53 - 0.020100061027691887678218 1\,I \quad (30)$$

```
> val2 := arccos(val1);
```

$$val2 := 0.10000000000000000000008 + 0.19999999999999999999984\,I \quad (31)$$

```
> val1 := tan(val0);
```

$$val1 := 0.09638813085645423219772 42 + 0.19928415105961047967906 6\,I \quad (32)$$

```
> val2 := arctan(val1);
```

$$val2 := 0.10000000000000000000000 + 0.20000000000000000000000\,I \quad (33)$$

```
> starting_demo9 := 1.0;
```

$$starting\_demo9 := 1.0 \quad (34)$$

```
> val0 := 0.3 + 0.2 I;
```

$$val0 := 0.3 + 0.2\,I \quad (35)$$

```
> val1 := sinh(val0);
```

$$val1 := 0.29845016188195174536330 2 + 0.20767670305628435583328 1\,I \quad (36)$$

```
> val2 := arcsinh(val1);
```

$$val2 := 0.30000000000000000000000 + 0.20000000000000000000000\,I \quad (37)$$

```
> val1 := cosh(val0);
```

$$val1 := 1.024501340227920709172 02 + 0.06049884291265948916305 98\,I \quad (38)$$

```
> val2 := arccosh(val1);
```

$$val2 := 0.29999999999999999999998 + 0.20000000000000000000001\,I \quad (39)$$

```
> val1 := tanh(val0);
```

$$val1 := 0.30222912890777214691264 5 + 0.18486280400641454735176 7\,I \quad (40)$$

```
> val2 := arctanh(val1);
```

$$val2 := 0.30000000000000000000000 + 0.20000000000000000000000\,I \quad (41)$$

```
> val1 := log(val0);
```

$$val1 := -1.020110414263277315991 25 + 0.58800260354756755124561 1\,I \quad (42)$$

```
> val2 := exp(val1);
```

$$val2 := 0.29999999999999999999 + 0.20000000000000000000 I \quad \textbf{(43)}$$

```
> starting_demo10 := 1.0;
```

$$starting\_demo10 := 1.0 \quad \textbf{(44)}$$

```
> (exp(1.0))^0.5;
```

$$1.6487212707001281468486 5 \quad \textbf{(45)}$$

```
> val := log10(10000.0);
```

$$val := 4.000000000000000000000000 \quad \textbf{(46)}$$

```
> 10.0^val;
```

$$10000.0000 \quad \textbf{(47)}$$

```
>
```