

Some general things to know:

- ▶ Every command needs to end with a semicolon – this tells Maple you’re done and want it to think about what you asked.
- ▶ If Maple just repeats back what you typed, that means it didn’t know what to do with it. You may have mistyped badly enough that it couldn’t recognize what you meant at all.
- ▶ Use only parentheses as grouping symbols. Maple reserves brackets and braces for special purposes, and trying to convey order of operations with them will only confuse things.

Here are some examples of particular Maple commands, appearing as they would in Maple with the input (what you type) in red, and the output (what Maple returns) in blue.

- ▶ To perform standard arithmetic, just type as you would with a graphing calculator, ending with a semicolon:

> $(8/3 + 1)*2;$

$$\frac{22}{3}$$

> $2^{100};$

1267650600228229401496703205376

- ▶ There are a few special functions worth remembering:

> $\text{sqrt}(4);$

2

> $\text{exp}(\ln(5));$

5

> $\text{sin}(\text{Pi}/2);$

1

- ▶ Often Maple gives an exact value (sometimes a confusing one) when you wanted a decimal. In that case the “evalf” command can get what you want:

> $8^{(1/3)};$

$$8^{\left(\frac{1}{3}\right)}$$

> $\text{evalf}(8^{(1/3)});$

2.000000000

Some examples of calculus with Maple:

```
> diff(x^4,x);  
4x3  
  
> integrate(ln(x),x);  
x ln(x) - x  
  
> integrate(1/x,x=1..5);  
ln(5)
```

Some examples of graphing with Maple:

```
> plot(x^3-x,x=-2..2);  
  
> plot(x*exp(-x),x=0..3);  
  
> plot([x*exp(-x),exp(-x)-x*exp(-x)],x=0..3);
```

An example of three dimensional graphing with Maple:

```
> plot3d(x^3-x+y^2,x=-2..2,y=-2..2);
```