Using Maple and Mathematica

These notes provide a brief introduction to the use of Maple and Mathematica in the MLC.

1. GETTING STARTED

You can find Maple and *Mathematica* shortcuts on the desktop. There are also shortcuts to them on poole , which you can find as follows:

- Browse to \\poole.scf.oregonstate.edu\ClassFolders\Math-Dray .
- Double-click on the Maple 16 or *Mathematica* 8 icons.

2. MAPLE

• Start Maple as above.

End each Maple command with a semicolon, then press enter.

The semicolon is not necessary in the default java-based frontend.

• Try the following commands:

```
x:=7;
x+2;
plot(sin(u),u=0..2*Pi);
```

3. MATHEMATICA

- Start Mathematica as above.
 - To execute a command, hold down the shift key while pressing enter.
- Try the following commands:

```
x=7
x+2
Plot[Sin[u],{u,0,2*Pi}]
```

4. TAXICAB GEOMETRY

• After starting *Mathematica*, a basic package for drawing figures in Taxicab Geometry can be loaded with the command:

<<"\\poole.scf.oregonstate.edu\ClassFolders\Math-Dray\MTH338\\taxicab.m"

 Try the following commands: TDraw[TCircle[{1,2},2] TDraw[TEllipse[{1,2},{4,3},5] TDraw[THyperbola[{-5/2,1/2},{7/2,7/2},1]

5. IAT_EX

The most commonly used software for typesetting mathematics is IAT_EX , which is available as TeXnicCenter in the MLC. Another option is Scientific Workplace, which incorporates the use of Maple to do computations, as well as IATEX to typeset the result. Try starting it and working through the tutorial.