

# Mathematics by Experiment: Assignment 0

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July 29, 2010

1. Join the *drop box*
  - Download a PDF copy of the text book.
  - Download also a copy of *Modern Mathematical Computation* (an introductory book on *Maple* by Borwein and Skerritt). Familiarize yourself with the table of contents of both.
2. Read chapters one and two of the text book.
3. Download the `maple.init/init` file and install this in your ‘Maple/lib’ folder. (You may need technical support to install it globally on the system.)
4. Explore the Maple `identify` function.
5. Explore as many of the functions in the *init* file as possible.
  - Especially look at: `reshape`, `r2p`, `f2p`, `pslq`, `Pslq`, `s2p`
  - Sample syntax:

```
reshape([seq(k3, k = 1..100)], 10, 6);
```

```
Q := s2p(1 + q + q2 + q10, q, q); series(Q, q, 10); series(Q, q, 12);
```

```
Digits := 20 : Q := sqrt(3) + sqrt(5); q := evalf[20](Q); f2p(q, 4); f2p(q, 4); r2p(Q, 4);
```

```
pslq(Pi, [arctan(1/2), arctan(1/5)], 10);
```

```
pslq(Pi, [arctan(1/2), arctan(1/5), arctan(1/8)], 10);
```

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