1 Desiderata from Last Time

Let me know if you have questions about:

(a) Passwords.
(b) Using the pine mailer.
(c) Invoking Maple in venues other than MG-104.
(d) Entering algebraic expressions.
(e) Entering expressions involving $\pi$ and $e$.
(f) Entering expressions involving the MATH-147 transcendental functions ($e^x$).
(g) Defining Maple functions (“arrow-defined”)
(h) Defining Maple functions (“arrow-defined” functions)
(i) Plotting a function.
(j) Plotting a function on a particular interval (What your TI calculator would call “setting $X_{min}$ and $X_{max}$”).
(k) Limiting the $y$-range of a function plot. (What your TI calculator would call “setting $Y_{min}$ and $Y_{max}$”).
(l) Avoiding retyping intermediate results.
(m) Why breaking up commands is a good idea.

2 Snappier Maple

If you’ve tired of waiting for Maple to load and start. If Maple seems ponderously leisurely to you, then the Classic Worksheet Interface is for you:

(i) In MG-104, click on the penguin Xterm button on the left of your screen. When the terminal window comes up, type xmaple -cw & at the terminal-window’s prompt.

(ii) In MP-121, the Classic Interface is one of the possibilities listed.
3 Section 1.3 factor, simplify, expand

3.1 Assign the expression \( x^2 - 6x - 16 \) to the Maple variable \( \text{goo} \). Cause Maple to factor \( \text{goo} \).

3.2 Try to cause Maple to factor \( \text{goo} + 50 \). Then read problem 7, page 11, and try the option listed at the very top of page 12.

3.3 Does problem 7 help with factoring \( \text{goo} - 12 \)?

3.4 Use the \text{expand} command on the following (using variables \( A \), \( B \), \( x \) and \( y \)):

(a) \((x + 1)^3\)

(b) \((x + 1)^3 - (x - 1)^3\)

(c) \(\cos(A + B)\)

(d) \(\sin(A + B) - \sin(A - B)\)

(e) \(\cos(2x)\)

(f) \(\sin(2x)\)

(g) \(e^{x+y}\)

(h) \(\ln(xy)\)

Did the last of these turn out as you expected?

3.5 Use the \text{simplify} command on the following:

(a) \(\frac{1}{x - 1} + \frac{8}{x + 2}\)

(b) \(\frac{1}{x - 1} + \frac{24}{(x + 2)^2} - \frac{1}{x + 2}\)