WeBWorK Tips for Students

Here are some basic expressions you may encounter, and the corresponding way to enter them into WeBWorK. *Remember to update your user settings to include your email address in order to communicate with your instructor about any WeBWorK questions!*

Plain Text	WeBWorK
x^2	x^2
$\log(x)$	log(x)
$\ln(x)$	ln(x)
$\sqrt{x}$	sqrt(x)
$\|x\|$	abs(x)
$\sin(x)$, $\cos(x)$, $\tan(x)$	sin(x), cos(x), tan(x)
$\sin^{-1}(x)$, $\cos^{-1}(x)$, $\tan^{-1}(x)$	arcsin(x), arccos(x), arctan(x)
$\sec(x)$, $\csc(x)$, $\cot(x)$	sec(x), csc(x), cot(x)
$\sec^{-1}(x)$, $\csc^{-1}(x)$, $\cot^{-1}(x)$	arcsec(x), arccsc(x), arccot(x)
e^x	e^x
π	pi

Notation

For addition, use +
For subtraction, use -
For multiplication, use *
For division, use /

Interval Notation

Interval in Set Notation	WeBWorK
$-2 < x \leq 5$	(-2,5]
$-5 \leq x < \infty$	[-5,infinity)
$-\infty < x < \infty$	(-infinity, infinity)
$20 \leq x \leq 41$	[20,41]
$40 < x < 51$	(40,51)

Syntax for Entering Expressions

- You should enter expressions just as you would enter them on a calculator.

- Sometimes using the * symbol to indicate multiplication makes things easier to read. For example

$$(x+y)*(\text{pi}+z)$$

and

$$(x+y)(\text{pi}+z)$$

are both equivalent ways to enter the expression $(x+y)(\pi+z)$ into WeBWorK.

- You can use parentheses ( ), brackets [ ], and curly braces{} as grouping symbols.

- Entering big quotients with square brackets can make things easier to read. For example consider the expression

$$\frac{-(x+y)-z}{2(4+x)}$$

Entering the expression into WeBWorK like this

[-(x+y)-z]/[2*(4+x)]

is easier to read than entering it like this

(-(x+y)-z)/(2*(4+x))

- Make sure for every parenthesis/bracket/curly brace you have open, there is a corresponding parenthesis/bracket/curly brace to close it.

- Use the "Preview Button" to see exactly how your entry is being interpreted by WeBWorK to ensure that what you entered is what you intended to enter.

The table below contains some more complicated examples of expressions and the corresponding input for WeBWorK.

Plain Text	**WeBWorK**
$\frac{3}{x}+1$	3/x+1 or (3/x)+1
$\frac{3}{x+1}$	3/(x+1)
$\frac{3+x^2y}{5-x+\sqrt[3]{z}}$	[3+(x^2)*y]/[5-x+(z^(1/3)]
$\frac{3+x^2y}{5-x}+\sqrt[3]{z}$	[3+(x^2)*y]/(5-x) + z^(1/3)
$\sqrt{x}+y$	sqrt(x)+y
$\sqrt{x+y}$	sqrt(x+y)
$\sqrt[3]{4x}$	(4x)^(1/3)
$4\sqrt[5]{x^2}$	4*[x^(2/5)] or 4*[(x^2)^(1/5)]
$4\lvert x\rvert^2$	4*{[abs(x)]^2}
$\sin^2(x)$	[sin(x)]^2
$\sin^3(2x)$	[sin(2x)]^3
$\sqrt{\ln(xy)}$	sqrt[ln(x*y)]
$\ln(\sqrt{xy})$	ln[sqrt(x*y)]
$\ln(2)x$	ln(2)*x
$\ln(2x)$	ln(2*x)