

Lesson #10

Using Parenthesis

Special care is needed when entering in long expressions and using certain functions. PEMDAS is an acronym commonly used to remember the order of operations. Entire expressions can be entered into the calculator for quick calculations, but for guaranteed results enter the expression exactly as it appears.

Set 1 – Evaluate each expression with and without the parenthesis. Compare the results.

LP#1 $(5 + 3) \cdot 9$	$5 + 3 \cdot 9$	$8 \cdot (5 + 3) \cdot 7$	$8 \cdot 5 + 3 \cdot 7$
LP#2 $(6 + 6) \div (2 - 5)$	$6 + 6 \div 2 - 5$	$5 \cdot ((5 + 3) \div (9 - 1)) + 4$	$5 \cdot 5 + 3 \div 9 - 1 + 4$
R#1 $(30 - 13) \cdot 3$	$30 - 13 \cdot 3$	$(7 + 3) \cdot (8 - 2)$	$7 + 3 \cdot 8 - 2$
R#2 $8 \cdot (5 + 3) \cdot 7$	$8 \cdot 5 + 3 \cdot 7$	$4 \cdot (9 + 3) \div 2 \cdot (22 - 10)$	$4 \cdot 9 + 3 \div 2 \cdot 22 - 10$
R#3 $12 \div (4 \cdot 3) + 8$	$12 \div 4 \cdot 3 + 8$	$5 \cdot ((5 + 3) \div (9 - 1)) + 4$	$5 \cdot 5 + 3 \div 9 - 1 + 4$

The next set of practice shows other functions of the calculator that require the user to close the parenthesis. Not closing the parenthesis to these functions can lead to miscalculations.

Set 2 – Evaluate each expression with and without the parenthesis. Compare the results.

LP#1 $\sin(30^\circ)+1$	$\sin(30^\circ+1$	$\log(100)+5$	$\log(100+5$
LP#2 $\sqrt{(36)}-2$	$\sqrt{(36-2$	$10^{(4)}\div 2$	$10^{(4\div 2}$
R#1 $e^{(2)}\cdot 5$	$e^{(2}\cdot 5$	$\sqrt{(225)}\div 5$	$\sqrt{(225\div 5$
R#2 $\ln(e)+20$	$\ln(e+20$	$\sqrt{(169)}+87$	$\sqrt{(169+87$
R#3 $\cos(45^\circ)+15$	$\cos(45^\circ+15$	$\sqrt{(256)}\cdot 16$	$\sqrt{(256\cdot 16$