

## Use of brackets in functions

One problem commonly encountered by new users is misinterpretation of brackets. The hp calculator will correctly interpret  $F1(X) = X^2(X+1)$  as  $X^{2*(X+1)}$  but will not understand  $F(X)=X(X+1)$ . When used in either Function or Solve, it will result in the error message of “Invalid User Function”.

Similarly if you want to use the sum to n terms formula for a GP in the Solve aplet and enter it as  $S=A(1-R^N)/(1-R)$  then you will see a similar message unless you change it to read  $S=A*(1-R^N)/(1-R)$ .

The reason for this apparent ‘error’ is that all of the built-in functions such as  $SIN(...)$  and  $COS(...)$  and  $ROUND(...)$  work with brackets. When the calculator encounters  $X(X+1)$  it interprets this as asking it to evaluate a function called  $X(...)$  at the value  $X+1$ . Since there is no such function it returns the error message that you are trying to use a function that is unknown.

The solution is simple: just remember to put the \* sign in when you use letters immediately before a bracket.

