

DrRacket Tips and Traps

Common errors

- **Too many parentheses** - Since an open parenthesis, "(", indicates the beginning of a function, too many parentheses will cause DrRacket to try to evaluate the result of the inner parenthesis as if it were a function, causing the error message: `illegal application: first term in application must be a function name`
- **Too few parentheses** - Such as leaving off the correct number of parentheses at the end of your function definition. The parenthesis-matching capabilities of DrRacket are designed to minimize this error, so pay attention to the highlighting that takes place as you type in parentheses. The error message generated is `syntax error: missing close paren` or `syntax error: too many close parens`
- **Misspellings** - Typographical errors will give a reference to `undefined identifier:[xxxx] error`.
- **Improper define syntax** - An incorrect syntax in a define statement may lead to a `define: malformed definition error`.

Error Message Interpretations

- **illegal application: first term in application must be a function name** - The first argument after the parenthesis must be a function. This error is generated by `((+ 3 4))`, where there is an extra set of parentheses.
- **syntax error: missing close paren** - The closing parenthesis is missing. The mis-matched opening parenthesis is highlighted by DrRacket. This error is generated by `(+ 5 (* 3 4)`.
- **syntax error: too many close parens** - The opening parenthesis is missing. The mis-matched closing parenthesis is highlighted by DrRacket. This error is generated by `+ 5 (* 3 4))`.
- **illegal application: first term in application is a function-bound identifier** - This error occurs in the "Beginning Student" level because function input parameters that are functions is not allowed. For example, it is generated by `(define (fn x y) (x y))` because `x` needs to be a function.
- **reference to undefined identifier:[xxxx]** - This means that `xxxx` was misspelled. The misspelled word is highlighted by DrRacket. Note that this may mean that there is a space missing between two words. For example, the error is generated by `(* 4 5)` where `*4` is "misspelled" due to a missing space.
- **define: malformed definition** - Incorrect syntax used in a define statement. For instance, `(define fn(x) (* x 5))` will generate the error. It should be `(define (fn x) (* x 5))`.

What does it mean when DrRacket says...?

- `*i[number]` - the number is an inexact value. That is, math errors may result from it because an approximation to the correct value has been used. For example `pi` prints out as `#i3.141592653589793`.