

[2.11] Force *getnum()* and *getdenom()* to return correct results with *part()*

The *part()* function is used to return the parts of an expression. In some cases it does not return the expected results. For example:

```
getnum(a/b)
```

return *a* as expected, and

```
getdenom(a/b)
```

returns *b*, as expected, and

```
part(tan-1(a/b),1)
```

returns *a/b*, again, as expected. But

```
getnum(part(tan-1(a/b),1))
```

returns *a/b*, and

```
getdenom(part(tan-1(a/b),1))
```

returns 1.

While it can be argued that this is mathematically correct, it is hardly useful. To force *getnum()* and *getdenom()* to return the expected results, save the result of *part()* in a variable, then use the functions on that variable.

```
part(tan-1(a/b),1)→temp
```

Then

```
getnum(temp)
```

returns *a*, and

```
getdenom(temp)
```

returns *b*.

(Credit to Frank Westlake)