

Exercise 1.8 Syntax errors – original code

```
1 {a,b,c,d,e,f#}::Indices.
2 C{#}::Symmetric.
3
4 foo := A_{a} B_{b} + C_{ab}.           # C_{ab} should be C_{a b}
5 bah := B_{b} A_{a} + C_{ba}.           # C_{ba} should be C_{b a}
6 meh := @(foo) - @(bah)                 # missing dot or semi-colon terminator
7
8 if meh == 0:
9     print ("meh is zero, and all is good")
10     success = True.                    # indentation error, drop the dot
11 else:
12     print ("meh is not zero, oops")
13     success = False.                  # indentation error, drop the dot
14
15 canonicalise (meh).                   # terminate with ; or nothing
16 sort_product (meh);
17
18 {\alpha\beta\gamma}::Indices.          # separate list elements with commas
19
20 foo := Ex ("A_{ab} - A_{a b}");         # use = for assignment, A_{ab} should be A_{a b}
21 bah := Ex ("A_{\alpha\beta} - A_{\alpha \beta}"); # use = for assignment, need raw string in Ex
```

Exercise 1.8 Syntax errors – corrected code

```

1  {a,b,c,d,e,f#}::Indices.
2  C{#}::Symmetric.
3
4  foo := A_{a} B_{b} + C_{a b}.           # cdb (ex-0108.101,foo)
5  bah := B_{b} A_{a} + C_{b a}.           # cdb (ex-0108.102,bah)
6  meh := @(foo) - @(bah).                 # cdb (ex-0108.103,meh)
7
8  if meh == 0:
9      print ("meh is zero, and all is good")
10     success = True
11 else:
12     print ("meh is not zero, oops")
13     success = False
14
15 canonicalise (meh)                       # cdb (ex-0108.104,meh)
16 sort_product (meh);                     # cdb (ex-0108.105,meh)
17
18 {\alpha,\beta,\gamma}::Indices.
19
20 foo = Ex ("A_{a b} - A_{a b}");           # cdb (ex-0108.106,foo)
21 bah = Ex (r"A_{\alpha\beta} - A_{\alpha \beta}"); # cdb (ex-0108.107,bah)

```

```

ex-0108.101 :=  $A_a B_b + C_{ab}$ 
ex-0108.102 :=  $B_b A_a + C_{ba}$ 
ex-0108.103 :=  $A_a B_b + C_{ab} - B_b A_a - C_{ba}$ 
ex-0108.104 :=  $A_a B_b - B_b A_a$ 
ex-0108.105 := 0
ex-0108.106 := 0
ex-0108.107 := 0

```