

## Exercise 2.8 Position keyword in ::Indices

```
1 {a,b,c}::Indices(position=free).
2
3 foo := A_{a b} + A^{a b}.           # cdb (ex-0208.101,foo)
4
5 substitute (foo, $A_{a b} -> B_{a b}$) # cdb (ex-0208.102,foo)
6
7 {p,q,r}::Indices(position=fixed).
8
9 foo := A_{p q} B^{p q} + A^{p q} B_{p q}. # cdb (ex-0208.201,foo)
10
11 canonicalise (foo)                  # cdb (ex-0208.202,foo)
12
13 {u,v,w}::Indices(position=independent).
14
15 foo := A_{u v} B^{u v} + A^{u v} B_{u v}. # cdb (ex-0208.301,foo)
16
17 canonicalise (foo)                  # cdb (ex-0208.302,foo)
```

$$A_{ab} + A^{ab} = B_{ab} + B^{ab} \quad (\text{ex-0208.102})$$

$$A_{pq}B^{pq} + A^{pq}B_{pq} = 2A^{pq}B_{pq} \quad (\text{ex-0208.202})$$

$$A_{uv}B^{uv} + A^{uv}B_{uv} = A_{uv}B^{uv} + A^{uv}B_{uv} \quad (\text{ex-0208.302})$$