

## Exercise 1.10 Relabel free indices

```
1 {a,b,c,d,e,f,u,v,w}::Indices.  
2  
3 \delta{#}::KroneckerDelta.  
4  
5 expr := A_{a b c}. # cdb (ex-0110.101,expr)  
6  
7 expr := \delta^{a}_{u} \delta^{b}_{v} \delta^{c}_{w} @ (expr). # cdb (ex-0110.102,expr)  
8  
9 eliminate_kronecker (expr) # cdb (ex-0110.103,expr)
```

$$\begin{array}{ll} A_{abc} & (\text{ex-0110.101}) \\ \delta^a_u \delta^b_v \delta^c_w A_{abc} & (\text{ex-0110.102}) \\ A_{uvw} & (\text{ex-0110.103}) \end{array}$$