

## combine-ecl-tuples<sup>0,22</sup>

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combine-ecl-tuples(A; B; f; g)
≡def let Ta, ksa, ia, ga, ha, aa, ae = A in
      let Tb, ksb, ib, gb, hb, ab, be = B in
        ⟨(Ta × Tb)
        , (ksa @ ksb)
        , ⟨ia, ib⟩
        , (λk', s, v, x. ⟨if deq-member(KindDeq;k'; ksa) → ga(k', s, v, 1of(x)) else 1of(x) fi
                          , if deq-member(KindDeq;k'; ksb) ∧2 ha(0, 1of(x)) → gb(k', s, v, 2of(x))
                          else 2of(x) fi⟩)
        , (λn, x. f((λm. ha(m, 1of(x))), λm. hb(m, 2of(x)), n))
        , (λn, k', s, v, x. g
          (if deq-member(KindDeq;k'; ksa) → aa(n, k', s, v, 1of(x)) else false2 fi
          , if deq-member(KindDeq;k'; ksb) → ha(0, 1of(x)) ∧2 ab(n, k', s, v, 2of(x))
          else false2 fi))
        , merge(ae; be)⟩
```