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1. *Assignment 14*
 - a. From the *Axiom of Choice* unit,
 - i. any two of routine exercises 3–5;
 - ii. any two of substantial problems 3, 4, 6.
 - b. Read the *Maximal Principles* unit and be prepared to discuss its routine exercises 1, 6 and substantial problem 1. Locate and read related material in Stoll [1963] 1979.
 2. *In class, Cardinals I.*
 - a. Various of us discussed the proofs of some of propositions 17–29.
 - b. I skipped ahead to prove proposition 33: $\alpha^{\beta\gamma} = (\alpha^\beta)^\gamma$ for all cardinals α, β, γ .
 - i. Given sets A, B, C with $\#A = \alpha$, $\#B = \beta$, $\#C = \gamma$,
 - ii. to find a bijection $f : A^{B \times C} \rightarrow (A^B)^C$. First, I'll show how f should be defined.
 - iii. Given $g \in A^{B \times C}$, to define $f(g) \in (A^B)^C$.
 - iv. Given $c \in C$, to define $f(g)(c) \in A^B$.
 - v. Given $b \in B$, to define $f(g)(c)(b) \in A$.
 - vi. That's easy: set $f(g)(c)(b) = g(\langle b, c \rangle)$.
 - vii. That looks like overuse of parentheses. A similar situation occurs in C (or C++) programming: parentheses occurring in the context $\dots(\dots)$ are interpreted as a binary operator, function evaluation, the function name occurring in the left-hand blank and the argument name on the right.
 - viii. Next, I'll define a function $e : (A^B)^C \rightarrow A^{B \times C}$.
 - ix. Given $h \in (A^B)^C$, to define $e(h) \in A^{B \times C}$.
 - x. Given $b \in B$ and $c \in C$, to define $e(h)(\langle b, c \rangle) \in A$.
 - xi. That's easy: set $e(h)(\langle b, c \rangle) = h(c)(b)$.
 - xii. You should be able to show that e and f are inverses of each other, so that f must be bijective.