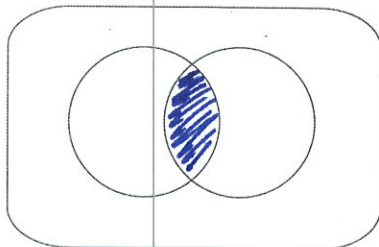


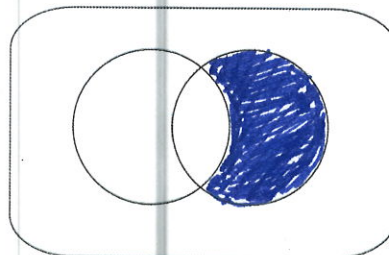
Instructions: Show all work on paper and attached work sheets to this cover page. If you use a calculator to perform the operations (where problems do not instruct you to complete them by hand), say which steps/commands were used to count as work. Give exact answers where possible. In other cases, round dollars to pennies. All other situations, follow standard rounding rules for means and standard deviations, or round to 4 places unless instructed otherwise in the problem.

1. Shade (and label) the Venn diagrams to illustrate the indicated sets.

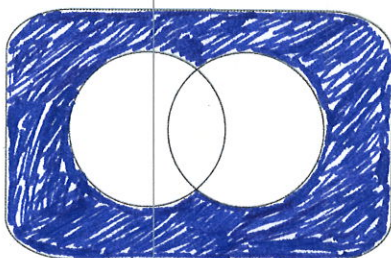
a. $A \cap B$



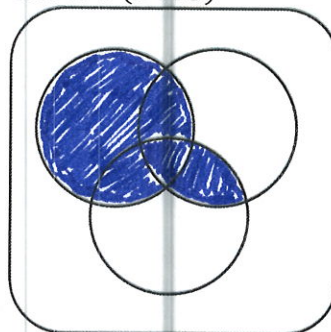
d. $A' \cap B$



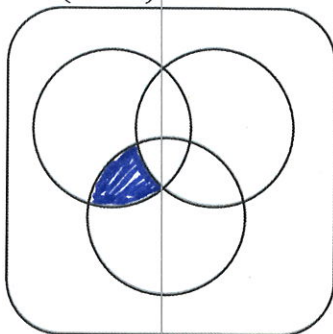
b. $B' - A$



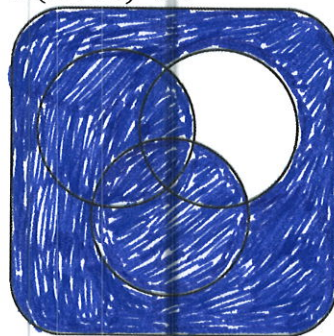
e. $A \cup (B \cap C)$



c. $A \cap (C - B)$



f. $(A' \cap B) \cup C$

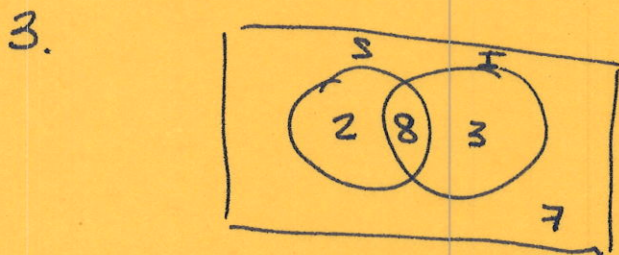
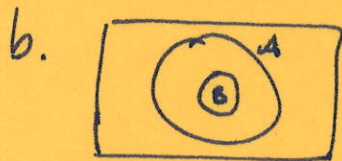
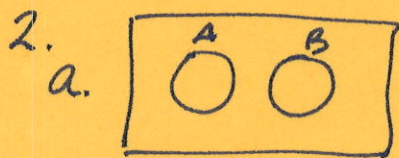


2. Draw a Venn diagram to illustrate the following properties of sets.

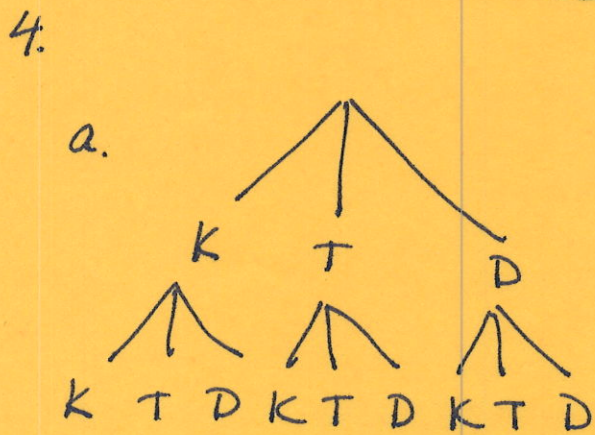
- A and B are disjoint ($A \cap B = \emptyset$)
- $B \subseteq A$ (B is a subset of A)

3. Convert the two-way table to the right into a Venn diagram. Be sure to clearly indicate what each set represents.

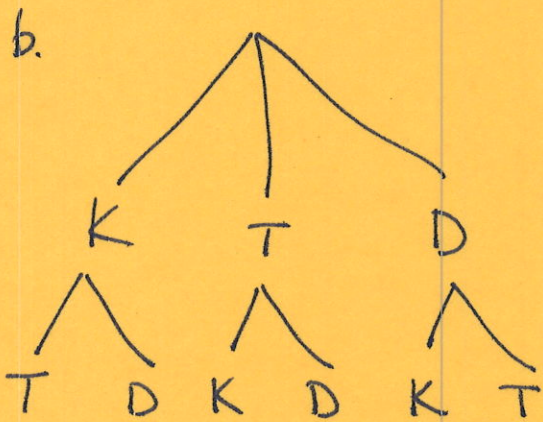
	Plays Team Sport	Does Not Play Team Sport	Total
Plays Instrument	8	3	11
Does Not Play Instrument	2	7	9
Total	10	10	20



S = play kam sport
I = instrument play



clears table



put dishes in dishwasher

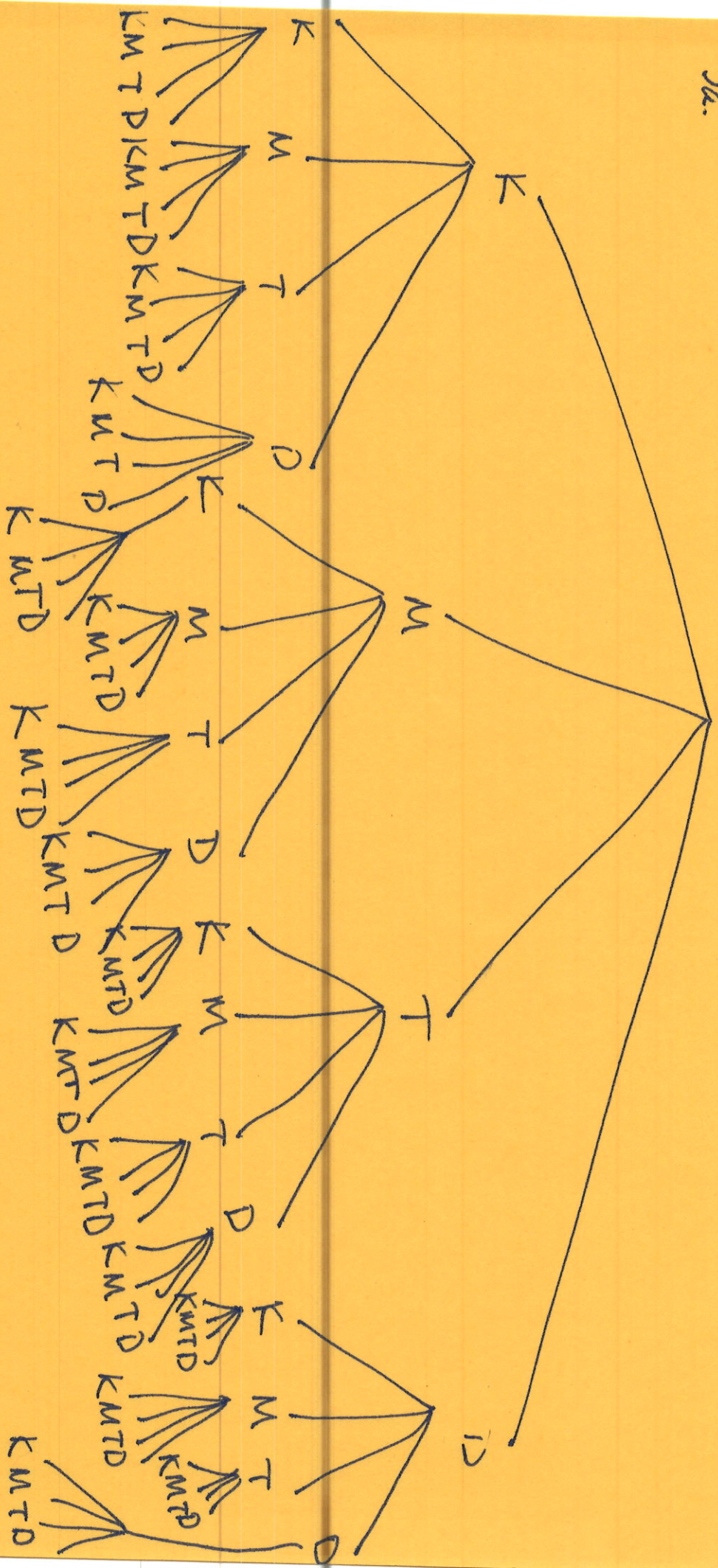
{KK, KT, KD, TK, TT, TD, DK, DT, DD}

clears table

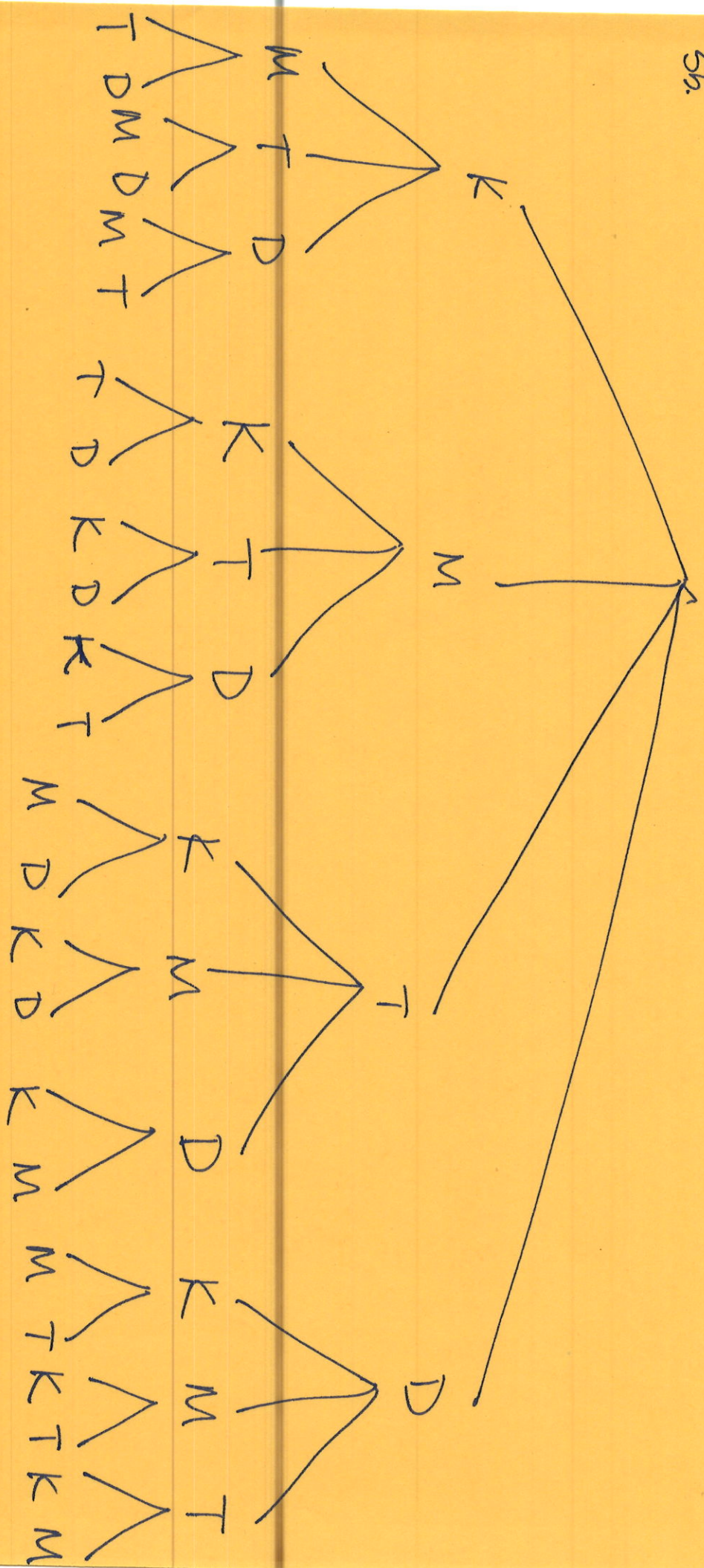
put dishes in dishwasher

{KT, KD, TK, TD, DK, DT}

5. next page



- Σ KKKK, KKM, KKT, KKD, KMK, KMM, KMT, KMD, KTK, KTM, KTT, KTD, KDK, KDM, KDT,
 KDD, MKK, MKM, MKT, MKD, MMK, MMM, MMT, MMD, MTK, MTM, MTD, MIDM, MDK, MDT,
 MDD, TKK, TKM, TKT, TKD, TMK, TMM, TMT, TMD, TTK, TTM, TTT, TTD, TDK, TDM,
 TDT, TDD, ~~DKK~~, DKM, DKT, DKD, DMK, DMM, DMT, DMD, DTK, DTM, DTT, DTD,
 DDK, DDM, DDT, DDD



$\{$ KMT, KMD, KTM, KTD, KDM, KDT, MKT, MKD, MTK, MTD, MDK, MDT, TKM, TKD,
 TDK, TMD, TDK, TDM, DKM, DKT, DMK, DMT, DTK, DTM $\}$