



SET EXERCISES

Why

Here are some exercises on sets.¹

Exercise 1. *Let A, B, C denote sets. Show $((A \cap B) \cup C = A \cap (B \cup C)) \iff (C \subset A)$ Observe that the condition does not involve B .*

Exercise 2.

$$A - B = A \cap B'.$$

Exercise 3.

$$A \subset B \text{ if and only if } A - B = \emptyset.$$

Exercise 4.

$$A - (A - B) = A \cap B.$$

Exercise 5.

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

Exercise 6.

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

Exercise 7.

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

¹Future editions will give the hypotheses more clearly.

