(2) We still need to show

$$(A+B)+C \supseteq A+(B+C) \qquad (*)$$

Instead of doing a similar work again, we <u>use</u> the previously shown $(A+B)+C \subseteq A+(B+C)$ for <u>all</u> sets A, B, C <u>and</u> the commutative law (C+) to get $(*)$. Here's how

$$A+(B+C) \underset{(C+)}{=} (B+C)+A \underset{(C+)}{=} (C+B)+A \underset{\substack{\text{previously shown direction}\\ \text{only with exchanged roles}\\ \text{of } A,C.}}{\subseteq} C+(B+A) =$$

$$\underset{(C+)}{=} (B+A)+C \underset{(C+)}{=} (A+B)+C$$