

Quick Hit 2

1. Use the following symbolic representations of the given natural language statements.

$t$  : I drink tea every day.

$c$  : I drink coffee every day.

$j$  : I drink apple juice every day.

- (a) Give a symbolic representation of the following natural language sentences

- i. If I drink tea every day, then I drink coffee and apple juice every day.

$$t \rightarrow (c \wedge j)$$

- ii. I drink neither coffee nor tea every day, but I drink apple juice every day.

$$\begin{aligned} & \sim c \wedge \sim t \wedge j \\ & \text{OR} \\ & \sim (c \vee t) \wedge j \end{aligned}$$

- (b) Give a natural language representation of the following symbolic statements.

- i.  $(t \wedge c) \rightarrow (\sim j)$

If I drink tea and coffee every day, then I don't drink apple juice every day.

- ii.  $\sim (c \vee j)$

It is not the case that I drink coffee every day or juice every day.