

## 2.19.1. Features of Validity: Problems

A. The following argument form (on the left) was earlier<sup>1</sup> presented as the logical form of an invalid English argument (on the right).

Either ● or ▲ .	1. <b>Either</b> we're having tacos for dinner, <b>or</b> <u>we're having chicken for dinner.</u>
Not ● .	2. We aren't having tacos for dinner.
_____	_____
∴ * .	(So,) <u>It's snowing.</u>

And while English arguments with this form will typically be invalid, we can now see that there will be certain mutant exceptions which are valid despite fitting this argument form (stated with formal connectives as follows).

$$\begin{array}{l} 1. ( \bullet \vee \blacktriangle ) \\ 2. \sim \bullet \\ \hline \therefore * \end{array}$$

1. Construct a valid argument with this form by filling **one** of the blanks (●, ▲, or \*) with a **tautology**. (*Note: there are two different ways of doing this.*)
2. Construct a valid argument with this form by filling **two** of the blanks with **contradictions**.
3. Construct a valid argument with this form **without** filling **any** of the blanks with a **tautology** or **contradiction**.

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<sup>1</sup> In 2.2 §1.

**B.** We arranged arguments into the following nine classes, according to whether the premise was a contradiction (**C**), a tautology (**T**), or neither (**N**); and likewise for its conclusion. (So, for example, a **T/C** argument has a premise that's a tautology and a conclusion that's a contradiction.)

<b>C/C</b>	<b>C/N</b>	<b>C/T</b>
<b>N/C</b>	<b>N/N</b>	<b>N/T</b>
<b>T/C</b>	<b>T/N</b>	<b>T/T</b>

1. Explain why **every /T argument** (the right column of the list) **is guaranteed to be valid**.
2. A **T/N** argument is guaranteed to be **invalid**. Every valuation where \_\_\_\_\_ will be a validity counterexample.