Translate the following sentences into Sentential Logic, assigning a sentence of your choice to a sentential letter.

Instructions:

a) Identify if the statement is a logical conjunction, negation or both. If it isn’t either of these two, mark it as being atomic.

b) If the statement is compound, separate the sentence into its independent statements and connect them into one long statement using ‘and’ and ‘it is not the case that’, filling in the pronouns for clarity.

c) Assign a capital letter to represent each independent statement.

d) Using only the capital letters from c) and the ampersand symbol (&), and the tilde (~), rewrite b).

Example Problem:
Both Seth and Trevor went to college.

Example Answer:
Seth went to college, and Trevor went to college.
Let S = “Seth went to college.”
Let T = “Trevor went to college.”
S & T.

Example Problem:
Regis did not remember to button his fly before walking on set.

Example Answer:
It is not the case that Regis remembered to button Regis’s fly before walking on set.
Let R = “Regis remembered to button Regis’s fly before walking on set.”
~R.

1. People aren’t concerned about the CIA.
2. There is no way that no one went to Oscar’s party.
3. The teacher’s presentation today was unremarkable.
4. My shoelaces have unraveled.
5. Wearing Tool shirts does not mean that the person wearing them is a geek.
6. I cannot understand why you said such a thing.
7. People cannot live without food.
8. He thinks you shouldn’t do that.
9. The detectives did not uncover the truth in time for the trial.
10. Students can never take ten courses in one semester.