Assignment 5

(use of commas)

Naively speaking, we can $\boxed{\text{only}}$ input one signal, "0" or "1", to a transistor, and it will give us one output $\boxed{\text{afterwards.}}$
Usually, we can input only one signal, "0" or "1", to a transistor, and it will give us one output .

The discovery of Superconductivity and Nuclear Magnetic Resonance, which led to the later applications in medical diagnostics, serves as a good example.
SC and MRI serve as good examples; both have important application to medical diagnosis.

I am honored to participate in the measurements of the first Arctic ozone hole. However $\boxed{\text{as an atmospheric Ph.D. student}}$ I am concerned with this issue. $\boxed{\text{It is}}$ the time to protect the Earth, because the ozone hole is above us.
The experiments to measure the first Arctic ozone hole are vitally important in protecting the Earth; I am honoured to participate in them.

One common thing among high temperature superconductors is all of them have Copper and Oxygen these two elements. $\boxed{\text{It}}$ turns out that $\boxed{\text{it is}}$ these two elements that create superconductivity.
All high Tc superconductors contain the elements C and O, which are now understood to be the creators of the superconducting phenomenon.

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Massive investments in new industries (such as the production of superconductors, the development of new materials, and the establishment of high magnetic field technologies) have helped to develop new instruments and techniques that benefit society as a whole.

CMP has also been proved to be a challenging research area. The fundamental difficulty is in CMP we meet a situation where in principle one can easily write down a comprehensive electron Hamiltonian, which is a mathematical formula that describes the behavior of electrons within the solid. $\boxed{\text{But}}$ this would not currently give much useful insight as it is highly impractical to solve due to the enormous number of electrons involved in macroscopic solids, and there is a non-linearity in the terms describing coupling between electrons. So even though we have the "equation for everything", a different approach is needed.

Theoretical physicists can easily write down an equation to describe the behaviour of electrons within a solid; however, this equation can be solved only in oversimplified situations. The challenge for CMP research is to find a different approach that is easy to solve, and provides useful insights .

Moreover, if superconductivity is induced in these materials, the mysterious particle, Majorana fermion, that has not been detected before experimentally, is predicted to exist at the surface of the topological superconductor. In addition to the contribution to particle physics and high-energy physics, Marjorana fermions could particularly be useful for practical quantum computation.
Quantum computation is another exciting area of application. Mysterious, so-far unobserved particles called Majorana fermions, are predicted to exist on the surface of topological insulators that have been made superconducting. The discovery of the Majorana fermions could greatly increase the speed of computation in addition to contributing to our understanding of other important fields of physics.

Most students judge the instructors to be very good, and the practical's to be very helpful.
Most students judge the instructors to be excellent, and the practicals to be valuable.

Thus, I suggest the content of these introductory courses should be focused on stimulating students' interest rather than trying to make them remember as much physics equations as possible. I think current introductory courses are covering too many physics aspects. As a result, students will not have enough time to think thoroughly about each aspect

These introductory courses would do better by focusing on stimulating students' interests, than by introducing a multitude of concepts that require the memorization of even more equations.

The courses do not leave enough time to allow students to think about each concept.

However, I think the department should not make these courses compulsory. These courses should be only for students who have interest in physics and would like to know more.

These courses should be optional, not compulsory, designed only for students who have an interest in physics.