Perspectives in Science and Mathematics

Test 1

Answer each of the questions below using at most 250 words. Typed answers are greatly appreciated.

- 1) Choose one of the following:
 - A) Provide arguments both for and against division by zero.
 - B) Provide arguments both for and against the existence of negative numbers.
- 2) ***This question redacted: I reused it from copyrighted documents that other schools may use and cannot legally post it online ***
- 3) ***This question redacted: I reused it from copyrighted documents that other schools may use and cannot legally post it online***
- 4) Describe how Darwin came to the ideas of evolution.
- 5) We learned about a piece of science that was shrouded in mystery, thought by many to be complete rubbish, but that actually turned out to have some legitimate science behind it. Figure out what I'm referring to, describe it, and to what extent their goals were eventually fulfilled.
- 6) Consider a device that makes an electrical arc such as shown here. Give three properties of this electrical arc. With each property, give an incorrect yet plausible explanation that could have been used to explain it.



- 7) What did you learn from presenting your lesson plan?
- 8) From a teacher's point of view, do you think this test is better as a take home test, or as a 60 minute in-class test? Defend your answer.