#1

Copyright Theories:

Copyright protection extends to original works of authorship fixed in any tangible medium of expression. §102. It inheres in the work at the time of fixation thus IP's software was protected on July 1, 2010 when it was fixed in a tangible medium (presumptively a disc). The first issue is whether the software is copyrightable subject matter. §102 provides an illustrative but non-exhaustive list of works of authorship. IP's software qualifies as a literary work but even if it didn't it will still be protected as long as it's an original work of authorship fixed in a tangible medium.

The Supreme Court has instructed that originality requires that the author independently created the work and that the work possesses a modicum of creativity. Feist. Here is seems clear that the software qualifies as original. IP independently created the work by a writing process that took six months in order to properly tie the computer recording equipment together with the automatic guitar peg tuners. As to the creativity requirement, it's a low threshold that demands the author contribute something more than a trivial variation. Here, it seems clear that IP's work was beyond trivial; individuals in the guitar field began using it and customers (at least one) purchased it. Furthermore, because originality does not require either novelty or uniqueness, IP meets this requirement. Thus as of July 1, 2010 IP had software that was protected by copyright.

Infringement:

IP will argue that ET is directly infringing his valid copyright by selling his version of the auto tuner to his friends and infringing by assisting a third party in infringement. Potential exclusive rights that ET is infringing include: right to reproduce the copyrighted work, right to

distribute copies, and the right to perform the work publicly (ET used on state). A cause of action for infringement requires: (1) ownership of a valid copyright, (2) Proof of actual copying, and (3) proof of illicit copying.

As to factor 1, IP will argue the above (original, fixed, etc.) and ET will challenge this assertion by claiming the software is a functional process, outside the ambit of copyright protection. It's not possible to copyright a way of doing things; protection extends only to an author's particular expression. Baker. ET will argue that the copyright was solely issued for IP's expression of a method of tuning a guitar and such a copyright does not secure the exclusive right to make, sell, and use all such art. Furthermore, ET will argue that the idea in the software is not protectable by copyright, and he can lawfully use the process without infringing.

Even if ET were to admit copying, he will argue there's no infringement because what he copied (the 5 line source code) is not copyrightable subject matter as a method of operation. A method of operation is a means by which a user operates something. Lotus. He will argue that without the code as written, users would be unable to use the program. To strengthen this argument, he will note that the displays to the user, which could possibly be deemed a creative choice by the author, and thus be protectable, are different.

As a threshold matter, copyright law prohibits copying but not independent creation. ET will argue that the programmer independently wrote the new software. Proof of copying can be direct via defendant's admission or circumstantial. If ET concedes copying, he would argue that the only material copied was the "functionality" found in IP's software and such material is unprotected and thus not infringing. If ET didn't concede copying, IP will argue that the substantial similarities between the 2 programs ("duplicated nearly all" and "operated in similar

manner") in addition to the clear access (IP gave software to ET on 9/1/10) suffices for proof of actual copying. Arnstein. IP will likely meet this element.

IP is required to prove illicit copying because not all copying is prohibited under the Act. IP must establish that ET copied original, expressive elements of the software. The ultimate inquiry is whether ET has copied a sufficient amount of protected expression to violate IP's copyright interests. Utilizing the abstraction filtration test to identify substantial similarity between IP's and ET's software, a fact finder would evaluate the protectability of each element of IP's software. IP would argue this includes any and all of the 1-5 components listed on page 4 (sending signal, display of message etc.). IP's code is clearly expression; what is less clear is whether the operation of the program amounts to protectable expression due to the function it serves: tuning the guitar.

Courts differ as to whether they compare the copyrighted work and the alleged infringing work element by element or as whole. Nichols. IP would favor an "on the whole" approach because unprotected elements are not necessarily excluded and EP's software operates in a similar manner and copies the code requisite to perform the comparison of the actual guitar's pitch to the in tune pitch that was desired. ET will favor an element by element comparison because besides the 5 lines, ET's software differs from IP's. IP could also favor an element by element approach because what arguably has the strongest protection – the code—is exactly what ET copied, resulting in substantial similarity between this "golden nugget" and ET's work.

Ultimately the copying must result in substantial similarity. There are varying approaches to this. The Second Circuit asks whether an ordinary lay observer would regard the programs as the same if he did not set out to detect the disparities between the two works. Peter Pan Fabrics. This approach would likely weigh towards ET, because the only exact copying

was the code, which is clearly not visible to a lay observer. The fact that the displays visible to users are different strengthen this argument. That the programs do essentially the same thing weighs for IP as does the fact that what was copied – the code—is the most original component of the software and thus is entitled to the greatest protection and thus effectively lowering the degree of substantial similarity required between his work and ET's.

ET will argue that the computer recording equipment and the auto peg tuner (1, 2) were in the public domain and thus not protectable. ET will argue that his copying was not illicit, because his software merely duplicated the idea that grounds the general function of the program which IP has no exclusive rights to—namely, tuning a guitar utilizing computer software. In fact, a website (howtotuneaguitar.org) had already been using this guitar tuning idea. ET will argue that if anything, IP has a very thin copyright, and thus copying the 5 line source code is not infringement under the merger doctrine. Furthermore, he will argue that there are only a few ways of expressing this particular idea due to constraints imposed by the medium (software) and thus the idea merges with the expression making the code not copyrightable. ET will argue that because there are fewer ways to express the idea, greater similarity must be shown between his work and IP's when comparing the two. This is a strong argument because the only identical similarity is the 5-line code.

Fair Use:

Copying IP's software and selling it without authorization violated his exclusive right to copy and to distribute. Assuming IP established infringement, the question is whether ET's use is fair and thus not infringing. Because it is not a favored use under §107, consideration of the following factors is necessary: (1) purpose and character of the use, including whether such us if of a commercial nature, (2) nature of the copyrighted work, (3) amount and substantiality of the

portion used in relation to the copyrighted work as a whole, and (4) effect of the use upon the potential market for of value of the copyrighted work. Harper. The facts here are most similar to the Sega case and thus the 9th Circuit's principles in applying these factors are instructive. As to one, the focus would be the immediate/direct purpose of ET's copying. Here, like the defendant in Sega, ET was studying the functional requirements; he didn't simply copy IP's code but rather the programmer wrote a "different" source code aside from the 5 lines. Under factor two, the nature of the copyrighted work is a computer program and the only thing copied is functional thus in the end arguably nothing copied was protectable. As to three, only five lines were copied. As to the fourth, most important factor, this weighs against ET. In Sega, there was mere entry into the video game market (as distinguished from entry into the gaming system market).

ET's use here is likely to harm IP because it isn't transformative in that is has no use distinct from the original purpose for which the software was created and because the immediate purpose is to copy the software because it "would be a great product to sell." Geophyiscal. IP has a strong argument based on: (1) ultimate purpose of use was for commercial gain; (2) the nature of the copyrighted work (not released yet, right of first distribution), (3) the fact that what was copied was essential to making the program operable ("the heart" of the copyrighted work); and (4) should ET's practice become widespread it would adversely affect IP's market. ET has a strong argument that (1) the copy was for purposes of reverse engineering, was the only way to gain access to the unprotected and functional aspects of the work, and the overall nature of the work was functional and not expressive.

Patent Theories:

IP will argue ET is infringing his patented invention: an automatic guitar tuner. There are five substantive requirements for patentability: (1) patentable subject matter, (2)

novelty/statutory bars, (3) utility, (4) non-obviousness, (5) enablement; ET will argue the patent is invalid, thus an assessment of the requirements is necessary. The tuner is likely a machine or a method of doing something that includes a new use of a known machine (method of tuning guitar via software using existing peg tuner and computer recording machines). The tuner must have practical, moral and operable utility. This appears to be met because the invention does what it claims to do, provides an identifiable benefit, and has a known use that is both particular and practical (real world use): it tunes a guitar. Brenner, Juicy Whip.

To be novel, the tuner must not have been published, publicly used, or invented by someone else on the date of invention. §102. The earliest date of invention IP can rely on is 1/1/2010; this will likely be valid because he spent the next six months writing the software and ultimately was able to practice the invention immediately following those six months. If the tuner was anticipated by prior art with all of the elements in the holder's claim, it is not novel. Rosaire. The potential prior art references: the automatic guitar peg tuners existing in 2007, the website, and the computer recording equipment would not anticipate IP's claim because they do not disclose every element IP claims as his invention.

The fact that IP used the tuner at home for a month beginning 7/1/2010 is not relevant for novelty purposes because you cannot anticipate yourself. However, it is relevant in relation to the statutory bars. The critical date for statutory bars is the date the patent application was filed; publication, public use, or sale of the invention starts the clock. The issue is whether inventor's use in his home qualifies as public use. Under the Federal Circuit's nature and purpose approach, IP would argue the use was for personal interest and enjoyment and thus not public use. Another issue is whether the Facebook status update is considered a publication or an offer for sale; if it is, this would bar patentability (1 month beyond 1 year limit). A publication

generally becomes public when it becomes available to at least one person, so certainly 250 individuals reading the message suffices. However, "developed a better way to tune it" is not a reference that would allow PHOSITA to make the claimed invention. Hall. "Let me know if you are interested in buying it" appears to be an offer for sale and arguably the device was ready for patenting at the time (IP had been practicing it for a month) thus creating a statutory bar. Pfaff. Giving the device to his brother on 9/1/10 creates another potential bar, as does his practicing the invention backstage. Public use does not depend on the number of persons to whom its use is known; a single use may qualify as a public use. Egbert, Rosaire. However, the fact that a restriction and obligation of secrecy accompanied giving ET the device weighs against public use. Overall, IP seems to have created a statutory bar to patentability due to his not filing within one year of the above events (especially the offer for sale).

The next issue is whether the specification described the invention and manner and process of making and using it in such clear, concise terms to allow PHOSITA to make and use the invention. §112. As written, IP's claim seems to lack sufficient disclosure ("wrote software") and also claims prior art (the peg). It is possible to enable but not possess. Enablement does not require that IP explicitly disclose how to make the invention; it requires only that PHOSITA *could* make the invention without undue experimentation. In re Wands. The inventor is not entitled to a patent if the description is so vague and uncertain that one cannot tell, except by undue experimentation, how to construct the device. Incandescent Lamp. The minimal guidance provided in the specification and the absence of working examples weighs against finding enablement (computer software for "comparing" "notifying" and "sending" but no explanation for how to create such software). IP will argue that any ambiguity would not result in undue experimentation for PHOSITA in the software field. ET has a strong argument

for no enablement because the claim is identical to what IP is describing how to make and use: "turning component for turning;" "recording component…for recording."

The last issue is whether the invention meets the nonobvious requirement. This requires determining (1) the scope and content of prior art, (2) the differences between the prior art and the claims, (3) the ordinary skill in the art, and (4) the obviousness or nonobviousness in light of the differences between prior art plus consideration of secondary factors. Graham. The prior art must be in the same field. Here this presumably includes the tuning peg and the computer recording equipment. Some of the invention's claims (peg) exist in prior art but have never appeared in a single reference but IP will argue this prior art doesn't anticipate because they lack the comparative software and enabling code. Software development is a sophisticated field and PHOSITA is presumed to know all of the art. If the field is guitars, it is presumably less sophisticated. Under (4), the inquiry is whether PHOSITA would have thought to combine the prior art if faced with this problem. The fact that it has been commercially successful (ET selling to musician friends), copying by others (ET), and failed efforts of others (ET's PHOSITA programmer's inability to create without copying) are secondary considerations related to the technical merits of the invention (no trademark, no endorsement) that weigh in favor of finding that IP bridged the gap between prior art. Weighing against obviousness is the fact that there presumably existed a marketplace that created a strong incentive to combine the elements in the way IP did (website that performed arguably same service, "any guitar player would want"). KSR. The fact that "all that remained was some way to tie the two components together" characterizes the leap as potentially obvious. Weighing in favor is the presumptive absence of the "tie" (here, the software) between the two prior art components.

IP will argue ET is infringing his patent my violating his exclusive right to use and sell his invention and by actively inducing infringement. A patent can be enforced against the programmer who reverse engineered and against ET on a vicarious liability theory. Evaluating infringement requires (1) construing the claims, (2) testing literal infringement, (3) testing infringement under doctrine of equivalents (DOE), and testing for indirect infringement.

As to claim construction, the "comprising" language means ET will be infringing if he has all of IP's elements, even if he adds some others. ET will argue his use falls outside the scope of IP's claim. To infringe, ET must practice the elements of the claim. The specification is the primary basis for construing the claim and words of a claim are generally given their ordinary meaning because the purpose is to put the public, courts, and competitors on notice as to what the claimed invention is. Phillips. The absence of even one element of a patent's claim in the allegedly infringing device means there can be no literal infringement. Larami. Because ET's software displayed nothing if the guitar was in tune ("the sounds match") IP cannot prove literal infringement because Claim 3 is missing from the accused product. IP is more likely to prevail under a DOE theory of infringement since ET's device falls outside the literal terms of the patent. ET is infringing under this doctrine because, though it was independently developed, his software performs substantially the same function in substantially the same way to obtain the same result. Graver. Specifically, the programmer copied the source code required for the comparison (claim 2) and the variant of the accused device (lack of notification) is unlikely to be viewed as an improvement over IP's design. Additionally, ET will be liable for inducement if the programmer is considered to be practicing the invention because he provided him with explicit instructions to re-create the patented software.

Trade Secret:

There is a claim under trade secret (ts) only if the code/software's (1) subject matter is a secret and the secret was (2) misappropriated. IP will argue for ts protection because the computer code was not generally known, readily ascertainable (programmer had to decompile after being unable to determine how software performed comparison), and had economic value (time/cost of developing, sales made). IP will argue ET's disclosure of the secret in violation of a confidential relationship (IP explicitly conditioned his giving on his brother not telling or giving it to anyone) amounts to misappropriation. That ET's product was not developed until after it had access to IP's device and that his product incorporated many if not all features of IP's design is strong evidence of improper means. Dravo.

ET will argue IP failed to take reasonable precautions to protect the secret and that it was disclosed (and protection lost) when IP gave ET the product embodying the secret that was knowable by reverse engineering. IP will argue limited disclosure doesn't destroy secrecy but ET will counter that the disclosure didn't further ET's economic interests. Mettalurgical. ET will also argue reverse engineering on a finished product is permissible and not actionable and that regardless of the manner of disclosure, the secret is destroyed. DuPont. IP will argue that while reverse engineering is normally permissible in relation to a legitimate purchaser, that argument fails when the means to get the information necessary to reverse engineer is through a confidential relationship. Kadant.

Liability Theories:

Plaintiff (AA) is the presumptive owner of the mark because it was the first to use the mark in commerce and will argue that IP is infringing. This requires the valid mark be used in commerce by IP in connection with a sale or distribution of goods that is likely to cause confusion. The first issue is whether "AUTO-TUNE" is distinctive and thus a valid mark. AA will likely be unable to assert that the mark is inherently distinctive, given the fact that "AUTO-TUNE" refers to a product that does essentially that – modifies (or tunes) the vocal pitch of a singer automatically. Therefore AA's best argument is that it's a descriptive mark that identifies the product's function and that has acquired secondary meaning in the minds of the consuming public due to its use of the mark for over 15 years. Zatarain's. The presence of the following factors would support a finding of secondary meaning (and likewise their absence would weigh against such a finding): consumer surveys, amount and manner of advertising, volume of sales, number of consumers, proof of intentional copying, and exclusivity of use. It would likely meet the different tests for identifying descriptive terms: dictionary, imagination (standing alone conveys information as to characteristic of product), and that other competitors are likely to need the term to describe their products because it relates so directly to the good.

The likelihood of confusion will be assessed with reference to several factors given the fact that the goods are related (music genre) but not competitive (singing, instrument). Sleekcraft. The fact that the marks as a whole are similar, the likelihood that expansion would result in entrance into IP's submarket, and the lesser degree of purchaser case associated with the sale of the lesser expensive product weighs in favor of confusion. That the strength of the mark is at best descriptive and good faith in selecting the mark weighs against confusion. The

proximity of the goods could go either way; on one hand, they are closely related in use and function (they both automatically tune something) in the musical field but at the same time each concerns distinct uses: one for singing and one for playing an instrument. AA will argue confusion is probable because both companies sell similar products.

Even if AA cannot establish likelihood of confusion as to the source, it will argue that IP's use of the mark impairs the distinctiveness of AA's mark by blurring. As a threshold matter AA would argue its mark is famous and would need supporting evidence beyond its use of the mark for 15 years including factors like the extent of advertising, and volume and geographic extent of sales. Assuming IP's delivery of the first AUTOTUNE package to a customer was interstate, AA must establish that IP's use would give rise to an association between the marks that would either impair the distinctiveness of its mark or harm the reputation of its mark. That IP's product did not compete with AA or cause economic injury is not relevant. Vuitton.

As a policy matter, AA will argue that to serve the purposes of trademark protection, IP should not be able to capitalize on the good will it has built for 15 years. The fact that it sued IP when he began selling his product indicates the company was policing its mark and similarly weighs for finding infringement.

Defenses:

IP's best defense is that AUTO-TUNE is an invalid, generic term that can never receive protection. Murphy. Alternatively, IP will argue it's a descriptive term that lacks secondary meaning and thus is similarly not protectable. Because the mark has only been registered within the last five years, IP is still able to contest the mark's alleged secondary meaning. IP will argue it fails the secondary meaning test because in the minds of the public, AUTO-TUNE indicates the product itself as opposed to its source. Qualitex. If it is valid because it has acquired

secondary meaning, IP will argue that his use of the mark is fair and thus there is no infringement because it is lawfully using the term to describe its product: an automatic tuner. As to dilution, IP will argue it's unlikely because he is not using AA's actual mark. Furthermore he will argue that there is a minimal degree of acquired distinctiveness in the mark and thus blurring is unlikely. Even if AA successfully establishes the possibility of consumer confusion under any of its theories, that's not dispositive, as some degree of consumer confusion is compatible with fair use. Lasting.