

Question 1

The makers could not be liable for contributory infringement or inducement. They would not be liable for contributory infringement because duct tape is a staple article of commerce that is capable of substantial non-infringing uses; contributory infringement requires the supplied component to be essentially good for nothing but infringement, but duct tape has many uses besides the infringing use, such as patching holes or fixing cracks. The makers would also not be liable for active inducement because they did not provide instructions, or any other form of aid, that would encourage or instruct the infringing activity; they merely sold an item that can be used to infringe, but without any evidence of their intent for it to be used specifically for infringement, or some form of aid or instruction, is insufficient.

Question 2

The first challenge could concern enablement. PH must appropriately disclose to a PHOSITA the manner of making and using the invention in full, exact, and concise terms. Though the PHOSITA can fill in some gaps, the specification of the patent must allow a PHOSITA to make and use the invention without having to conduct undue experimentation. Enablement is examined as of the date of filing.

PH's specification states the camera lens is constructed like a traditional periscope. The periscope is already in the prior art, having been patented in 1919. The PHOSITA would be able to understand what PH describes without having to conduct undue experimentation because the manner and process of making a telescope is already disclosed in the prior art.

Furthermore, PH describes the duct tape connection between the lens and the phone as her preferred embodiment and also describes any other type of camera and connector that could be used. Here, it is less clear whether PH has enabled her claims. While the PHOSITA could fill in some gaps and discover how to use duct tape to attach a lens to a camera, the PHOSITA might not be able to do the same without undue experimentation when the claim is expanded to any type of camera and connector.

Whether experimentation is undue, or only permissibly routine, is analyzed based on illustrative factors from In re Wands, specifically: quantity of experimentation required, amount of direction given, presence or absence of working examples, nature of the invention, state of the prior art, relative skills of those in the art, predictability of the art, and breadth of the claims. The breadth of the claims

here is large because PH claims any type of connector and camera. The art is predictable because it would be fairly easy for the PHOSITA to come up with alternative ways to fasten the lens to a different camera besides using duct tape, such as with glue, Velcro, or a lace without having to undergo onerous experimentation to find out what works because the concept of attaching things together is well-known. The relative skills of those in the art may be minimal because the inventions are aimed at photographers who would probably not know a great deal about constructing cameras, but lay people have at least some skill in fastening two object together. The state of the prior art includes the iPeriscope, which became publicly accessible a day before the filing date of PH's application, and the Clamp Lens, which became publicly accessible a year prior, and the periscope. Finally, the description offers no guidance on which connectors or means will work and does not describe any working examples except for her preferred embodiment, suggesting the amount of necessary experimentation that the PHOSITA would have to undergo could be quite large to see what works. PH could argue the PHOSITA would not have to conduct undue experimentation to make and use the invention. The predictability of the art weighs in favor of enablement, and though the breadth of the claims is large, it would not be undue experimentation for the PHOSITA to discover what methods work for connecting a lens to a camera and what methods do not, possessing ordinary skill and knowledge and being able to conduct some routine experimentation.

The second challenge against PH's patent could be based on the written description of the invention, which must show that the inventor had possession of the

invention at the time of filing. In this case, the PHOSITA must be reasonably certain that the inventor invented what she claimed to invent. Again, not every embodiment must be disclosed, but the PHOSITA must know the specific invention that the inventor claims. Similar to enablement above, the scope of the disclosure is great, but in this case, it may be too great to make it reasonably clear that PH possessed what she claims. She claims any means for connecting a lens to a camera, and any type of connector that could be used to attach a lens to a camera. While the PHOSITA may be able to fill in some gaps to make and use equivalent methods of attaching lenses to cameras, the written description only discloses one embodiment and a general process of attaching a lens to a camera without any specific description of how to do so or which ways work. As such, though PH showed she was in possession of her preferred embodiment of the invention, her written description does not show she was in possession of all possible ways or connectors to attach a lens to a camera. Whereas enablement must put the PHOSITA in "possession" of the invention by allowing him to make and use it, the written description must show the inventor actually possessed all that she claimed. Here, PH failed to sufficiently disclose that she actually thought of all methods in addition to duct tape. As such, she must show that she in fact thought of other means to attach a lens to a camera besides only the duct tape, which may be a preferred embodiment, but is not the only embodiment she thought of or meant to claim.

The third possible challenge concerns definiteness, which requires an applicant to adequately describe in the claims the metes and bounds of the patent, namely which features can be freely used and which may not be during the term of the

patent. The claims must specifically point out and distinctly specify the subject matter the inventor claims as her invention so they will be known and accessible to the PHOSITA. A claim will be deemed indefinite if insolubly ambiguous, meaning it cannot be adequately construed in light of the specification and prior art from the perspective of the PHOSITA.

Here, PH can argue against a definiteness challenge on both of her claims. Even though the claims broadly describes any means and connectors for attaching a lens to a camera, PH can argue they outline what the patent covers. The fact that a claim may be overbroad does not mean it is indefinite as long as the PHOSITA can understand what the applicant described as his invention. PH describes a periscopic lens and a means of attaching said lens to a camera, as well as connector for doing so. Reading this claim in light of the specification would let the PHOSITA know such means can include duct tape or other similar methods or things that connect a lens to a camera. PH could argue the PHOSITA would not be confused as to what the claims mean when reading them in light of the specification that describes the invention, and that they are not so vague as to be insolubly ambiguous, even though it may be difficult to define all possible parameters of "means for connecting" and "connector."

The fourth possible challenge may concern novelty. In light of the references in the prior art, her invention can be challenged as not novel. First, it may be challenged for novelty under 102(a) for having been known or used by others in the U.S. prior to invention date. In this case, PH's invention date would be December 1, 2012, when she had first reduced her invention to practice after conceiving of it on February 1, 2012. As such, any prior art references before December 1, 2012 may

make anticipate her invention if they disclose and enable every element of her claimed invention. For this reason, the iPeriscope would not count as a prior art reference for purposes of 102(a) because it came out after her invention date, but the traditional periscope and the Clamp Lens by AI would. To be prior art under 102(a), each reference must be known or used by others before December 1, 2012. Knowledge or use by others requires some form of public accessibility. If a substantial portion of the public knew about the claimed invention through some type of public disclosure, the invention may be non-novel. Also, if the invention had been previously used by others openly, with no measures to ensure secrecy, and in the ordinary course of business, the invention may be non-novel even without public knowledge. Here, selling to the public can constitute public use if done in the ordinary course of business.

Here, the clamp lens was an appropriate prior art reference because it was known by others before the invention date of PH's patent. AI's putting the clamp lens up for sale on March 1, 2012 made the art publicly accessible and available. The fact that little or no sales were made will not negate public accessibility. There is no threshold for the amount of people who must know about the reference for it to be considered public knowledge as long as it is above one or a few. In this case, however, PH can argue against public knowledge of AI's invention to negate its inclusion as a prior art reference. Because almost no sales were made of the product, it may be the case that not many people actually knew the product existed, and knowledge of the reference by only a small group of people is insufficient for it to count as prior art. Even if it does count as prior art, it will not anticipate PH's

claimed invention. Under the all-elements rule, the clamp lens fails to anticipate every claim of PH's patent. For it to anticipate, the clamp lens must contain parallel lenses at least 4 inches apart in such a way as to bend light from one lens to the other and be attached to the camera via a connector. In this case, PH would have to argue that the clamp lens is not an embodiment of her claimed invention such that it would not infringe on her patent if it came out afterward. This may be difficult to do here. PH broadly claims a means and a connector for attaching a lens to a camera, which the clamp constitutes. Furthermore, though PH had in mind a periscopic lens, the two lenses in a telephoto and a wide angle camera lens are also parallel and bend light from one lens to the other, just not at right angles. The requirement for the lenses to be at least 4 inches apart may knock out the wide angle lens, but can still describe the telephoto lens, which arguably extends to well beyond four inches. Thus, AI's disclosure of a telephoto lens, which has parallel lenses that bend light from one lens to the other and can be attached to a camera via a connector may anticipate PH's invention. Also, AI's invention is limited to camera enabled cellphones, but PH's specifically covers camera phones and every other type of camera. In sum, AI's invention would likely infringe PH's patent if it came after, and so would likely anticipate for coming before. PH's best argument would be to maintain the disclosure/knowledge was not public.

The traditional periscope, on the other hand, would not anticipate PH's patent because it does not cover all of the claims of PH's claimed invention. The patent on the periscope only covers the lens, without a means to attach it to any sort of camera. It would not infringe if it came after PH's patent because it lacks all of the

elements of her claimed invention. Thus, though it patented before PH's invention, and may be a prior art reference, it will not anticipate.

Second, the patent could be challenged on the basis of non-novelty under §102(e) for being described in an earlier patent, namely the traditional periscope patent. Here, however, PH could argue that the description of the invention in that prior patent did not describe her invention, and so would not anticipate it. Though 102(e) may invalidate a patent even if the same invention is not claimed, the description a previous patent or published patent application must match the claimed invention such that PH could not be deemed the first inventor. In this case, a PH has to argue that the description of a traditional periscope would not describe PH's invention, so the challenge must fall.

Third, PH could argue against a possible 102(f) challenge by declaring that she independently conceived of the invention herself, and did not derive, or copy, it from neither the periscope patent nor AI's clamp lens. Because she arrived at the idea herself, she may successfully argue there was no derivation.

Fourth, PH would have to overcome a challenge under 102(g) against the two prior inventions of the periscope and the clamp lens. 102(g) looks to whether before the applicant's invention date, the invention was made by another and not abandoned, suppressed, or concealed. This may arise either during an interference proceeding, where another claims the same invention, or outside of one, where the claims do not overlap but the same invention was made in the U.S. by another. To determine priority of invention, PH would have to argue she reduced her invention to practice before any other by either practicing the embodiment of her invention with

all elements and with appreciation that the invention worked for its intended purpose, or constructively via filing for a patent. In this case, PH did not reduce to practice (RTP) either actually or constructively before AI (the periscope was omitted because it arguably does not anticipate, as described above. As such, it will not matter in the analysis). AI RTP at the latest on March 1, 2012 when it offered its product for sale. PH, however, RTP on December 1, 2012, when she made the prototype, or first embodiment of her invention. PH may try to overcome being the later reducer to practice by arguing she was the first to conceive of the invention and acted with diligence from the conception until the RTP, even though she was second to reduce. PH can argue she conceived of the idea on February 1, 2012. She would have to prove, however, that her idea at that point was so definite and permanent that it could have been RTP by a PHOSITA and that at that point, it already encompassed all elements of the invention. PH need not have conceived of every nut and bolt, but enough to allow construction of the invention without extensive experimentation. PH could argue that she had thought of using a periscopic lens and attaching it somehow to a camera on February 1, 2012. She would have to argue, however, that her conception was arguably extremely close to the prototype she developed such that the only thing really missing was to actually construct it. Fortunately, she can show she had thought of the process to make a mirrored lens, but arguably she did not yet conceive of how to attach said lens to a camera at that point. That came later, after she had constructed the lens. As such, she had not conceived all the elements on the earlier date of February 1, 2012, and her default RTP date of December 1, 2012 will be her priority date. Even if she did conceive of

all the elements sufficiently definitely in February, she would have to show she conceived before AI and that if she did, she was diligent in the interim from the conception by AI until her own RTP. For this, she would need to show she engaged in substantially continuing activity, or steady and industrious efforts, to reduce the invention to practice, and explain any gaps or delays she might have experienced. Otherwise, her invention date would be December 1, 2012, her date of RTP.

The next challenge could be under 102(b) for a statutory bar. 102(b) maintains that an inventor loses her right to patent her invention if she waits too long to file. Namely, if the invention is patented, described in a printed publication, in public use, or on sale more than 1 year prior to the filing date of the application, the applicant will be barred from getting a patent. PH filed her patent application on March 2, 2013. From March 2, 2012 until this filing date, PH enjoyed a grace period, activity during which would not bar her right to patent her invention. As such, her own putting her invention on sale on January 1, 2013, which could normally trigger an on-sale bar under 102(b), will not negate her right to patent because it occurred inside the 1 year grace period. CC's iPeriscope sale also falls inside the grace period, and so will not bar PH's right to patent her invention. AI's offer for sale on March 1, 2012, will, however, trigger an on sale bar because it falls one day outside of the grace period. The on sale bar triggers when a product is the subject of a commercial offer for sale or is part of a completed sale, and the invention was possessed, that is ready for patenting. Both of these are satisfied by AI's products. It was offered for sale on March 1, 2012. It is irrelevant that virtually no sales actually occurred. Actual purchase is not required for the bar to trigger. Also, it was ready for patenting

because AI was two versions of the completed product. PH can negate the bar by arguing the sale was truly secret, such that it was not open to the public. Evidence seems to suggest, however, that it was available to the public, which is sufficient to trigger the bar. PH can also try to argue the sale was not public because it was only experimental, testing the invention for quality or was only a "Beta" version of the invention. AI can negate this argument by saying it had, prior to the sale, already reduced its invention to practice. A RTP negates experimental use or sale because the invention is no longer being tested, but relinquished to the public. Since AI was not conducting any sort of feasibility inquiries, or engaging in feedback of the quality or operability of the clamp lens, PH is unlikely to prove the sale was only experimental.

Finally, PH's patent can be challenged on obviousness. The subject matter as a whole must have been obvious at the time of the invention as compared with the prior art from the viewpoint of a PHOSITA, assuming the PHOSITA can fill in gaps, knows all prior art, has ordinary skill and creativity. Obviousness is analyzed under the Graham test: scope and content of prior art, including only analogous art; differences between prior art and invention; level of ordinary skill in the art; determining obviousness, informed by secondary considerations. In this case, the prior art could contain the periscope patent and AI's clamp lens, as described in each section of the novelty analysis above, but is limited only to pertinent or analogous references. This requires art to be from the same field of endeavor or reasonably pertinent to the particular problem the inventor tried to solve. Arguably, this would not eliminate the periscope patent because while it is not in the same field of

endeavor (taking photographs), it addresses the same problem as PH (seeing above one's head). The differences between the prior art and the invention are minimal. While AI's patent only described linear camera lenses, and the periscope patent only described the bent lens, a PHOSITA would arguably think to combine the two into PH's claimed invention, since he knows all the art as if it is hanging in his shop and has ordinary skill and creativity. The level of skill in the art is not minimal even though PH is a lay person because creating different lenses requires knowledge of functionality of light and mirrors. Thus, the subject matter could be obvious to a PHOSITA, as a whole, considering PH's expected and predictable success, meaning she only tried to attach the lens and camera once, and it worked, and the finite choices PH had to make in combining the elements of the prior art, meaning there was really only one way to make it work and that was the way PH chose. Thus, it was obvious for a PHOSITA to combine a periscopic lens with an connector to a phone camera, and create PH's invention.

There would be no subject matter challenge because though the invention takes advantage of a natural law concerning how light works, it is really an application of that law through a method and a device.

Question 3

CC may see two different claims of direct infringement. The first is literal infringement, which stipulates that CC made, used, offered to sell, and sold the patented invention during the term of the patent. This requires every element of the claimed invention to match with every element of the accused invention. The second is under the doctrine of equivalents (DOE). DOE states that infringers cannot escape liability for only minor changes to the patented invention, even if the accused invention does not contain all the elements.

Against literal infringement, CC can argue its making, using, and selling the invention occurred before the terms of the patent began. Since PH only got her patent on March 2, 2015, CC's activity before this date is not infringement because the patent did not exist. CC can also argue the elements of its sold invention did not match the elements of PH's invention. First, its product was only for an iPhone, whereas PH's invention was described as being for an Android phone. Normally, limitations from the specification are not read into the claims, but the specification informs claim interpretation and may limit broad claim language such as that of PH's patent claiming any connectors. CC would argue that its iPhone clamp does not match the elements of PH's patent when read in light of the specification. Additionally, limitations will be read into the claims for a means plus function claim like PH's first claim. There, the structure disclosed in the specification and its equivalents limit the claims, so PH would not get a patent on the general structure, but only the Android-duct tape structure disclosed in the specification. CC would have to argue, however, that an iPhone is not equivalent to an Android phone because

of the different shapes of the phones, so they would not be equivalent structures that perform the claims.

For DOE, CC could argue its invention is not equivalent as a whole to PH's invention. Here, CC can argue that PH cannot claim equivalents of elements in the prior art, such as the lens, covered by the periscope patent, or the clamp, covered by AI's product. CC cannot infringe by practicing the prior art. Thus, because the lens and the clamp are part of the prior art, CC is not infringing for practicing those elements.

CC may also challenge the validity of PH's patent, most notably for being non-novel under 102(a) or 102(g), and for being obvious under 103, both as described in Question 2 above. If CC is successful, it will invalidate PH's patent and would thus not infringe.

Finally, CC may argue that PH's patent is invalid if it has evidence of PH engaging in inequitable conduct, namely failing to disclose a but-for material known prior art reference with specific intent to deceive. In this case, if CC finds that PH did not disclose to the PTO the AI invention, for instance, with specific intent to deceive the PTO into issuing a patent, and that the patent would not have issued had the PTO known about the reference, CC could invalidate PH's patent forever. Such evidence is not apparent here, but CC could force PH's disclosure in order to "mine for gold" and try to force invalidity.

Question 4

Under the AIA, the inventor's sale would be prior art because it was available to the public prior to the filing date of the application. It now no longer matters where the inventor sold the product because the AIA strips geographic limitations of the old 102. PH still gets a grace period, however, of 1 year prior to the effective filing date to file, but the sale would constitute prior art under the new 102 as either on sale, or otherwise available to the public because it does not require another. Under the new 102, an inventor's own activity now constitutes prior art, which it did not under the old 102. Thus, PH's own conduct can now make her invention non-novel because it is considered prior art.