

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



**Determining Obviousness Under 35 U.S.C. § 103 in
View of the Supreme Court Decision
*KSR International Co. v. Teleflex Inc.***

**23rd meeting of the
WIPO Standing Committee for the Law of Patents**

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Obviousness outline

- The KSR decision;
- Determining obviousness under 35 U.S.C. § 103;
- Person of Ordinary Skill in the Art
- Providing a rationale to support a rejection under 35 U.S.C. § 103; and
- Considering applicant's rebuttal evidence of nonobviousness.

KSR International Co. v. Teleflex Inc., **550 U.S. 398 (2007)**

- In the KSR decision, the Supreme Court reaffirmed Graham v. John Deere Co., 383 U.S. 1 (1966), as the controlling case on the topic of obviousness.
(GRAHM FACTORS)
- The Supreme Court stated that the Federal Circuit erred when it applied the well-known **teaching-suggestion-motivation (TSM)** test in an overly rigid and formalistic way.
- The **TSM** test reflected US law on obviousness before the KSR decision

KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007)

The TSM Test was the principal test before KSR

- Under the TSM test, a claimed invention is obvious when there is a teaching, suggestion, or motivation to combine prior art teachings. The teaching, suggestion, or motivation may be found in the prior art, in the nature of the problem, or in the knowledge of a person having ordinary skill in the art.
- According to the Supreme Court, the TSM test is one of a number of valid rationales that could be used to determine obviousness. It is not the only rationale that may be relied upon to support a conclusion of obviousness.

The Basic Factual Inquiries of Graham v. John Deere (GRAHM FACTORS)

- Determining the scope and content of the prior art;
- Ascertaining the differences between the claimed invention and the prior art;
- Resolving the level of ordinary skill in the pertinent art.

The examiner must consider objective evidence of nonobviousness, sometimes referred to as “secondary considerations,” when it is properly presented by applicants.

The Examiner as Fact Finder

- Examiners act as fact finders when resolving the Graham inquiries.
- Examiners must articulate findings as to the scope and content of the prior art as necessary to support the obviousness rejection being made.

Key Points

- When making a rejection under 35 U.S.C. § 103, an examiner must articulate a reason or rationale to support the obviousness rejection.
- In formulating a rejection under 35 U.S.C. § 103, the rationale should be based on the state of the art and **not on impermissible hindsight**, e.g. applicant's disclosure.

Key Points

- Examiners need to account for all claim limitations in their rejections.
 - Either indicate how each limitation is shown by the reference(s) applied, or provide an explanation.
- Prior art is not limited to the references being applied.
 - Prior art includes both the specialized understanding of **one of ordinary skill in the art**, and the common understanding of the layman.
 - Examiners may rely on, for example, official notice, common sense, design choice, and ordinary ingenuity.

One of Ordinary Skill in the Art

- Hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include:
 - (1) type of problems encountered in the art
 - (2) prior art solutions to those problems
 - (3) rapidity with which innovations are made
 - (4) sophistication of the technology
 - (5) educational level of active workers in the field

• In re GPAC, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995).

One of Ordinary Skill in the Art

- A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton. In many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.
- Office personnel may also take into account “the inferences and creative steps that a person of ordinary skill in the art would employ”

KSR International Co. v. Teleflex Inc. (KSR), 550 U.S. 398, 82 USPQ2d 1385 (2007).

One of Ordinary Skill in the Art

- In addition to the factors above, Office personnel may rely on their own technical expertise to describe the knowledge and skills of a person of ordinary skill in the art.
- Examiners and administrative patent judges on the Board are “persons of scientific competence in the fields in which they work” and that their findings are “informed by their scientific knowledge, as to the meaning of prior art references to persons of ordinary skill in the art.”

- In re Berg, 320 F.3d 1310, 1315, 65 USPQ2d 2003, 2007 (Fed. Cir. 2003).

Rationales for finding claims are obvious

- One or more of the rationales set forth in the following slides may be relied upon to support a conclusion of obviousness.

Note that the list of rationales provided herein is not intended to be an all-inclusive list.

- Again, a key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation by the examiner of the reasons why the claimed invention would have been obvious.

Rationales for finding claims are obvious

Examiners must:

- Resolve the Graham inquiries.
- Articulate the appropriate findings as identified by the Examination Guidelines.
- Explain how the rationale leads to a conclusion of obviousness under § 103.

Rationale A. Combining prior art elements according to known methods to yield predictable results.

Examiners must articulate the following:

- 1) a finding that the prior art included each element claimed although not necessarily in a single reference;
- 2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods and that in combination, each element merely would have performed the same function as it did separately; and
- 3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Rationale A. Combining prior art elements according to known methods to yield predictable results.

Rationale: All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Rationale B. Simple substitution of one known, equivalent element for another to obtain predictable results

Examiners must articulate the following:

- 1) a finding that the prior art contained a device which differed from the claimed device by the substitution of some components with other components;
- 2) a finding that the substituted components and their functions were known in the art;
- 3) a finding that one of ordinary skill in the art could have substituted one known element for another and the results of the substitution would have been predictable.

Rationale B. Simple substitution of one known, equivalent element for another to obtain predictable results

Rationale: The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Rationale A and B Caution

- Note that combining known prior art elements is not sufficient to render the claimed invention obvious if the results would not have been predictable to one of ordinary skill in the art.

Rationale C. Use of known technique to improve similar devices (methods, or products) in the same way.

Examiners must articulate the following:

- 1) a finding that the prior art contained a “base” device upon which the claimed invention is an improvement;
- 2) a finding that the prior art contained a comparable device that was improved in the same way as the claimed invention; and
- 3) a finding that one of ordinary skill could have applied the known “improvement” technique in the same way to the “base” device and the results would have been predictable.

Rationale C. Use of known technique to improve similar devices (methods, or products) in the same way.

Rationale: The claim would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

Rationale C Caution

- The Supreme Court in KSR noted that if the actual application of the technique would have been beyond the skill of one of ordinary skill in the art, then the resulting invention would not have been obvious because one of ordinary skill could not have been expected to achieve it.

Rationale D. Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results.

Examiners must articulate the following:

- 1) a finding that the prior art contained a “base” device;
- 2) a finding that the prior art contained a known technique that is applicable to the base device; and
- 3) a finding that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results.

Rationale D. Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results.

Rationale: The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art.

Rationale E. “Obvious to try” – choosing from a finite number of predictable solutions.

Examiners must articulate the following:

- 1) a finding that there had been a recognized problem or need in the art including a design need or market pressure to solve a problem;
- 2) a finding that there had been a finite number of identified predictable potential solutions;
- 3) a finding that one of ordinary skill in the art could have pursued the known potential options with a reasonable expectation of success.

Rationale E. “Obvious to try” – choosing from a finite number of predictable solutions.

Rationale: The claim would have been obvious because “a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.”

Rationale F. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Examiners must articulate the following:

- 1) a finding that the scope and content of the prior art, whether in the same or different field of endeavor, included a similar or analogous device.
- 2) a finding that there were design incentives or market forces which would have prompted adaptation of the known device.
- 3) a finding that the differences between the claimed invention and the prior art were encompassed in known variations or in a principle known in the prior art.
- 4) a finding that one of ordinary skill in the art, in view of the design incentives or market forces, could have implemented the claimed variation of the prior art, and the claimed variation would have been predictable.

Rationale F. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Rationale: The claim would have been obvious because the design incentives or market forces provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Rationale G. TSM Test

Examiners must articulate the following:

- 1) a finding that there was some **teaching, suggestion, or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) a finding that there was reasonable expectation of success.

Rationale G. TSM Test

Rationale: The claim would have been obvious because a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and that there would have been a reasonable expectation of success.

Applicant's Response

If an applicant traverses an obviousness rejection under § 103, a reasoned statement must be included explaining why the applicant believes the Office has erred substantively as to the factual findings or the conclusion of obviousness. 37 CFR 1.111(b).

Rebuttal Evidence

- Examiners should consider all rebuttal evidence that is presented by the applicant in a timely manner.
- Rebuttal evidence may include evidence of secondary considerations such as commercial success, long felt but unsolved needs, failure of others, and unexpected results.
- If the examiner nevertheless maintains the rejection after reweighing all of the evidence, he or she must clearly explain the reasons for doing so.

Additional training on treating affidavits under 37 CFR 1.132 is available.

For More Information

The examination guidelines and training materials in view of KSR International Co. v. Teleflex Inc. may be accessed at:

<http://www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidelines-training-materials-view-ksr>

