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Nagel Point

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Abstract. By using the computer program "Machine for Questions and Answers", we find properties of the Nagel Point.

Given a point, the Machine for Questions and Answers produces theorems related to properties of the point. The Machine for Questions and Answers produces theorems related to properties of the Nagel Point:

Nagel Point = Incenter of the Anticomplementary Triangle.

Nagel Point = Incenter of the Antipedal Triangle of the Orthocenter.

Nagel Point = Center of the Incircle of the Anticomplementary Triangle.

Nagel Point = Center of the Conway Circle of the Anticomplementary Triangle.

Nagel Point = Center of the Hexyl Circle of the Anticomplementary Triangle.

Nagel Point = Center of the Adams Circle of the Anticomplementary Triangle.

Nagel Point = Center of the Incircle of the Antipedal Triangle of the Orthocenter.

Nagel Point = Center of the Conway Circle of the Antipedal Triangle of the Orthocenter.

Nagel Point = Center of the Hexyl Circle of the Antipedal Triangle of the Orthocenter.

Nagel Point = Center of the Adams Circle of the Antipedal Triangle of the Orthocenter.

Nagel Point = Reflection of the Incenter in the Spieker Center.

Nagel Point = Reflection of the Orthocenter in the Fuhrmann Center.

Nagel Point = Reflection of the de Longchamps Point in the Bevan Point.

Nagel Point = Product of the Centroid and the Nagel Point.

Nagel Point = Product of the Mittenpunkt and the Isotomic Conjugate of the Incenter.

Nagel Point = Product of the Internal Center of Similitude of the Incircle and the

Circumcircle and the Isotomic Conjugate of the Symmedian Point.

Nagel Point = External Center of Similitude of the Incircle and the Spieker Circle.

Nagel Point = External Center of Similitude of the Conway Circle and the Radical Circle of the Excircles.

Nagel Point = External Center of Similitude of the Incircle and the Incircle of the Medial Triangle.

Nagel Point = External Center of Similitude of the Spieker Circle and the Circumcircle of the Intouch Triangle.

Nagel Point = External Center of Similitude of the Conway Circle and the Conway Circle of the Medial Triangle.

Nagel Point = External Center of Similitude of the Hexyl Circle and the Hexyl Circle of the Medial Triangle.

Nagel Point = External Center of Similitude of the Adams Circle and the Adams Circle of the Medial Triangle.

Nagel Point = Radical Center of the Soddy Circles of the Anticomplementary Triangle.

Nagel Point = Radical Center of the Soddy Circles of the Antipedal Triangle of the Orthocenter.

Nagel Point = Perspector of Triangle ABC and the Intouch Triangle of the Medial Triangle.

Nagel Point = Perspector of the Extouch Triangle and the Anticevian Triangle of the Nagel Point.

Nagel Point = Perspector of the Extouch Triangle and the Circumcevian Triangle of the Nagel Point.

Nagel Point = Perspector of the Anticevian Triangle of the Nagel Point and the Pedal Triangle of the Bevan Point.

Nagel Point = Perspector of the Anticevian Triangle of the Nagel Point and the Circumcevian Triangle of the Nagel Point.

Nagel Point = Perspector of the Anticomplementary Triangle and the Fuhrmann Triangle.

Nagel Point = Perspector of the Pedal Triangle of the Bevan Point and the Circumcevian Triangle of the Nagel Point.

Nagel Point = Perspector of the Antipedal Triangle of the Orthocenter and the Fuhrmann Triangle.

Nagel Point = Perspector of Triangle ABC and the Stevanovic Triangle of the Orthocenters

of the Triangulation triangles of the Bevan Point.

Nagel Point = Perspector of Triangle ABC and the Stevanovic Triangle of the Nagel Points of the Triangulation triangles of the Center of the Outer Soddy Circle.

Nagel Point = Perspector of Triangle ABC and the Stevanovic Triangle of the Nagel Points of the Triangulation triangles of the Center of the Inner Soddy Circle.

Nagel Point = Homothetic Center of Triangle ABC and the Triangle of the Nagel Points of the Corner Triangles of the Centroid.

Nagel Point = Perspector of Triangle ABC and the Triangle of the External Centers of Similitude of the Incircles and the Circumcircles of the Corner Triangles of the Orthocenter.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the External Center of Similitude of the Incircle and the Circumcircle in the sides of the Excentral Triangle.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the Nagel Point in the vertices of the Extouch Triangle.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the Nagel Point in the vertices of the Anticevian Triangle of the Nagel Point.

Nagel Point = Homothetic Center of Triangle ABC and the Triangle of the reflections of the vertices of the Medial Triangle in the Spieker Center.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the vertices of the Intouch Triangle in the Incenter.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the vertices of the Extouch Triangle in the Nagel Point.

Nagel Point = Homothetic Center of Triangle ABC and the Triangle of the reflections of the vertices of the Anticomplementary Triangle in the Incenter.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the vertices of the Anticevian Triangle of the Nagel Point in the Nagel Point.

Nagel Point = Perspector of Triangle ABC and the Triangle of the reflections of the vertices of the Anticevian Triangle of the Mittenpunkt in the Spieker Center.

Nagel Point = Perspector of Triangle ABC and the Outer Apollonius Triangle of the Lucas Circles of the Extouch Triangle.

Nagel Point = Perspector of Triangle ABC and the Outer Apollonius Triangle of the Lucas Circles of the Anticevian Triangle of the Nagel Point.

Nagel Point = Perspector of Triangle ABC and the Outer Apollonius Triangle of the Lucas

Circles of the Pedal Triangle of the Bevan Point.

Nagel Point = Perspector of Triangle ABC and the Outer Apollonius Triangle of the Lucas Circles of the Circumcevian Triangle of the Nagel Point.

Nagel Point = Anticomplement of the Incenter.

Nagel Point = Anticomplement of the Anticomplement of the Spieker Center.

Nagel Point = Isotomic Conjugate of the Anticomplement of the Mittenpunkt.

Nagel Point = Isogonal Conjugate of the External Center of Similitude of the Incircle and the Circumcircle.

Nagel Point = Anticomplement of the Isogonal Conjugate of the Incenter.

Nagel Point = Isotomic Conjugate of the Isogonal Conjugate of the Internal Center of Similitude of the Incircle and the Circumcircle.

Nagel Point = Isotomic Conjugate of the Gergonne Point.

Nagel Point = Isotomic Conjugate of the Cyclocevian Conjugate of the Gergonne Point.

Nagel Point = Anticomplement of the Nagel Point of the Medial Triangle.

Nagel Point = Anticomplement of the Circumcenter of the Intouch Triangle.

Nagel Point = Isogonal Conjugate of the Anticomplement of the External Center of Similitude of the Incircle and the Circumcircle of the Medial Triangle.

Nagel Point = Isogonal Conjugate of the Gibert Point of the Intouch Triangle.

Nagel Point = Anticomplement of the Isogonal Conjugate of the Nagel Point of the Medial Triangle.

Nagel Point = Anticomplement of the Isogonal Conjugate of the Circumcenter of the Intouch Triangle.

Nagel Point = Isotomic Conjugate of the Isogonal Conjugate of the Exeter Point of the Intouch Triangle.

Nagel Point = Isotomic Conjugate of the Symmedian Point of the Intouch Triangle.

Nagel Point = Anticomplement of the Isotomic Conjugate of the Equal Parallelians Point of the Medial Triangle.

The Nagel Point lies on the Circumcircle of the Fuhrmann Triangle.

The Nagel Point lies on the Outer Apollonius Circle of the Lucas Circles of the Fuhrmann

Triangle.

The Nagel Point lies on the Line through the Incenter and the Spieker Center.

The Nagel Point lies on the Line through the Centroid and the Incenter.

The Nagel Point lies on the Line through the Centroid and the Spieker Center.

The Nagel Point lies on the Line through the Internal Center of Similitude of the Incircle and the Circumcircle and the Schiffler Point.

The Nagel Point lies on the Line through the Isogonal Conjugate of the Grinberg Point and the Nagel Point.

The Nagel Point lies on the Line through the Fuhrmann Center and the Orthocenter.

Invitation

The reader is invited to submit a note/paper containing

- synthetic proofs of theorems from this paper,
- or, applications of theorems from this paper,
- or, additional references related to this paper.

Definitions and Conventions

We use the definitions and conventions in accordance with [1 - 6] and papers published in this journal.

The Level

The Machine for Questions and Answers is used to produce results in this paper. Currently the Machine has 6 levels of depths - 0,1,2,3,4,5. We use for this paper the level 0, that is, the Machine produces only elementary results. If we need deeper investigation, we have to use a level bigger than 0. Since the Machine for Questions and Answers produces too many results, it is suitable we to use bigger levels upon request, that is, for specific questions.

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