

## Inner Vecten Point

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**Abstract.** By using the computer program "Machine for Questions and Answers", we find properties of the Inner Vecten 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 Inner Vecten Point:

Inner Vecten Point = Outer Kenmotu Point of the Antipedal Triangle of the Inner Vecten Point.

Inner Vecten Point = Orthocenter of the Inner Vecten Triangle.

Inner Vecten Point = Center of the First Droz-Farny Circle of the Inner Vecten Triangle.

Inner Vecten Point = External Center of Similitude of the Cosine Circle and the Nine-Point Circle.

Inner Vecten Point = External Center of Similitude of the Radical Circle of the Lucas Circles and the Nine-Point Circle of the Medial Triangle.

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

Inner Vecten Point = Perspector of Triangle ABC and the Triangle of the Outer Kenmotu Points of the Corner Triangles of the Orthocenter.

Inner Vecten Point = Perspector of Triangle ABC and the Triangle of the reflections of the Outer Kenmotu Point in the sides of the Excentral Triangle.

Inner Vecten Point = Perspector of Triangle ABC and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Cevian Triangle of the Inner Vecten Point.

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

Inner Vecten Point = Perspector of Triangle ABC and the Triangle of the reflections of the vertices of the Cevian Triangle of the Inner Vecten Point in the Inner Vecten Point.

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

Inner Vecten Point = Homothetic Center of the Incentral Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Incentral Triangle.

Inner Vecten Point = Homothetic Center of the Medial Triangle and the Triangle of the Centroids of the Triangulation Triangles of the Inner Vecten Point.

Inner Vecten Point = Homothetic Center of the Medial Triangle and the Triangle of the Inner Vecten Points of the Anticevian Corner Triangles of the Centroid.

Inner Vecten Point = Homothetic Center of the Medial Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Medial Triangle.

Inner Vecten Point = Homothetic Center of the Orthic Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Orthic Triangle.

Inner Vecten Point = Homothetic Center of the Symmedial Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Symmedial Triangle.

Inner Vecten Point = Homothetic Center of the Intouch Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Intouch Triangle.

Inner Vecten Point = Homothetic Center of the Extouch Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Extouch Triangle.

Inner Vecten Point = Homothetic Center of the Excentral Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Excentral Triangle.

Inner Vecten Point = Homothetic Center of the Anticomplementary Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Anticomplementary Triangle.

Inner Vecten Point = Homothetic Center of the Tangential Triangle and the Triangle of the reflections of the Inner Vecten Point in the vertices of the Tangential Triangle.

Inner Vecten Point = Isogonal Conjugate of the Outer Kenmotu Point.

Inner Vecten Point = Anticomplement of the Inner Vecten Point of the Medial Triangle.

Inner Vecten Point = Isogonal Conjugate of the Anticomplement of the Outer Kenmotu Point of the Medial Triangle.

Inner Vecten Point = Isogonal Conjugate of the Reflection of the Inner Kenmotu Point in the Third Power Point.

Inner Vecten Point = Isogonal Conjugate of the Product of the Centroid and the Outer Kenmotu Point.

Inner Vecten Point = Isogonal Conjugate of the External Center of Similitude of the Circumcircle and the Cosine Circle.

Inner Vecten Point = Isogonal Conjugate of the External Center of Similitude of the Gallatly Circle and the Lemoine Circle.

Inner Vecten Point = Isogonal Conjugate of the External Center of Similitude of the Fermat-Tucker Circle and the Napoleon-Tucker Circle.

Inner Vecten Point = Isogonal Conjugate of the External Center of Similitude of the Arctan(1/2) Tucker Circle and the Arctan(2) Tucker Circle.

Inner Vecten Point = Isogonal Conjugate of the External Center of Similitude of the Arctan(1/3) Tucker Circle and the Arctan(3) Tucker Circle.

Inner Vecten Point = Isogonal Conjugate of the Inverse of the Inner Kenmotu Point in the Brocard Circle.

Inner Vecten Point = Complement of the Perspector of the Anticomplementary Triangle and the Outer Vecten Triangle.

Inner Vecten Point = Complement of the Perspector of the Antipedal Triangle of the Orthocenter and the Outer Vecten Triangle.

Inner Vecten Point = Isogonal Conjugate of the Perspector of the Cevian Triangle of the Outer Kenmotu Point and the Circumcevian Triangle of the Outer Kenmotu Point.

Inner Vecten Point = Isogonal Conjugate of the Perspector of the Orthic Triangle and the Outer Vecten Triangle.

Inner Vecten Point = Isogonal Conjugate of the Perspector of the Anticevian Triangle of the Inner Kenmotu Point and the Pedal Triangle of the Orthocenter.

Inner Vecten Point = Isogonal Conjugate of the Perspector of the Anticevian Triangle of the Outer Kenmotu Point and the Circumcevian Triangle of the Outer Kenmotu Point.

Inner Vecten Point = Isogonal Conjugate of the Perspector of the Anticevian Triangle of the Inner Kenmotu Point and the Outer Vecten Triangle.

The Inner Vecten Point lies on the Orthocentroidal Circle of the Inner Vecten Triangle.

The Inner Vecten Point lies on the Line through the Orthocenter and the Outer Kenmotu Point.

The Inner Vecten Point lies on the Line through the Nine-Point Center and the Symmedian Point.

The Inner Vecten Point lies on the Line through the Nine-Point Center and the Prasolov Point.

The Inner Vecten Point lies on the Line through the Nine-Point Center and the Outer Vecten Point.

The Inner Vecten Point lies on the Line through the Prasolov Point and the Symmedian Point.

The Inner Vecten Point lies on the Line through the Outer Vecten Point and the Symmedian Point.

The Inner Vecten Point lies on the Line through the Outer Vecten Point and the Prasolov Point.

The Inner Vecten Point lies on the Line through the Nine-Point Center and the Orthocenter of the Tangential Triangle.

### **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**

We use the definitions in accordance with [1 - 5] 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.

### **References**

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