

Skordev Point

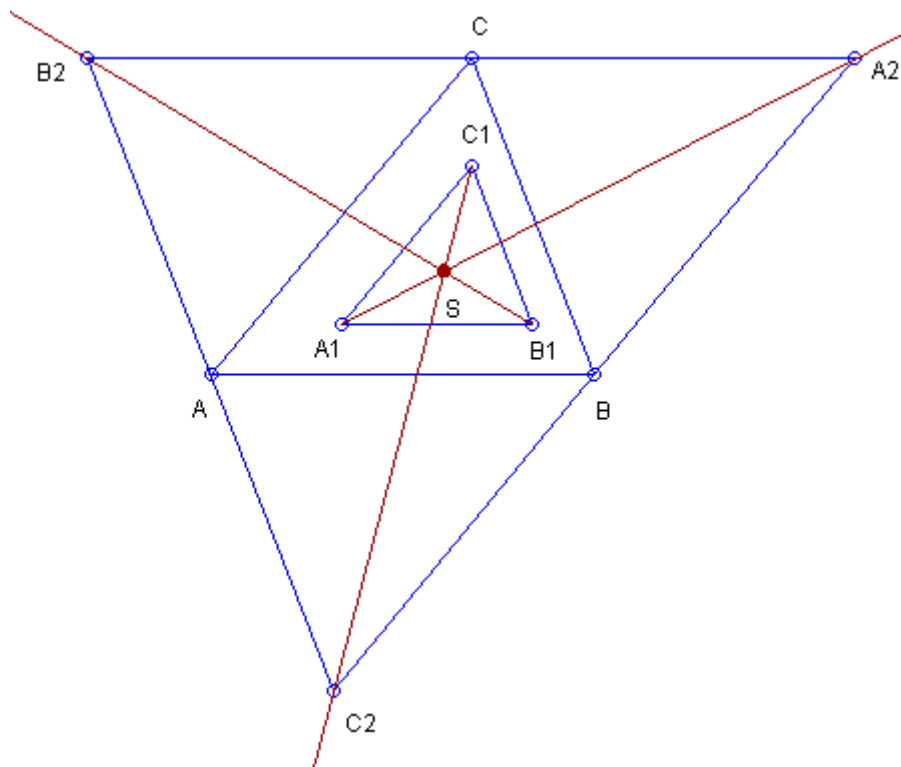
Deko Dekov

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

The *Skordev Point* is the homothetic center of the Anticomplementary Triangle and the Euler Triangle.

The Skordev Point is named in honor of Dimiter Skordev, a Bulgarian mathematician, one of the founders of the Bulgarian mathematics.

See the Figure:



$A_1B_1C_1$ - Euler Triangle;

$A_2B_2C_2$ - Anticomplementary Triangle;

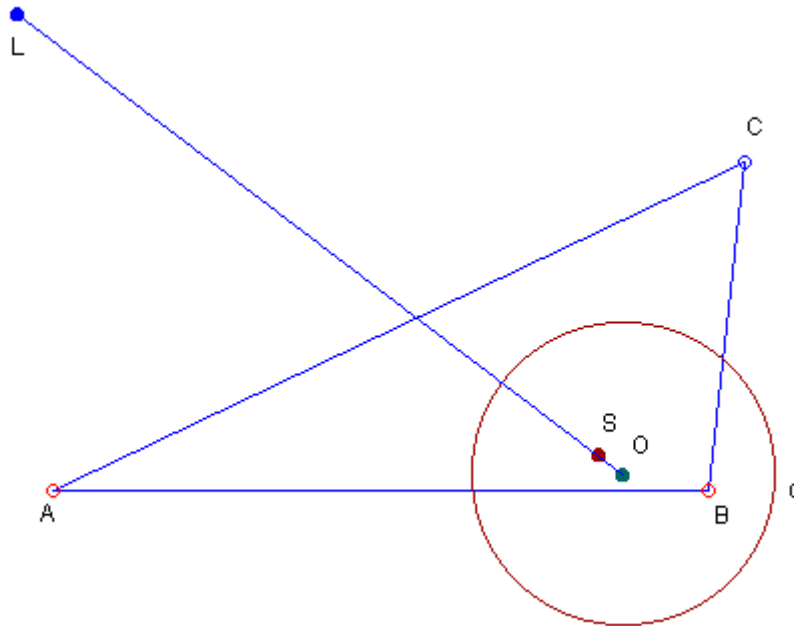
S - Skordev Point = perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

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 Skordev Point:

Skordev Point = Inverse of the de Longchamps Point in the Orthocentroidal Circle.

See the Figure:



L - de Longchamps Point;

c - Orthocentroidal Circle;

O - Center of the Orthocentroidal Circle;

S - Skordev Point = Inverse of the de Longchamps Point in the Orthocentroidal Circle.

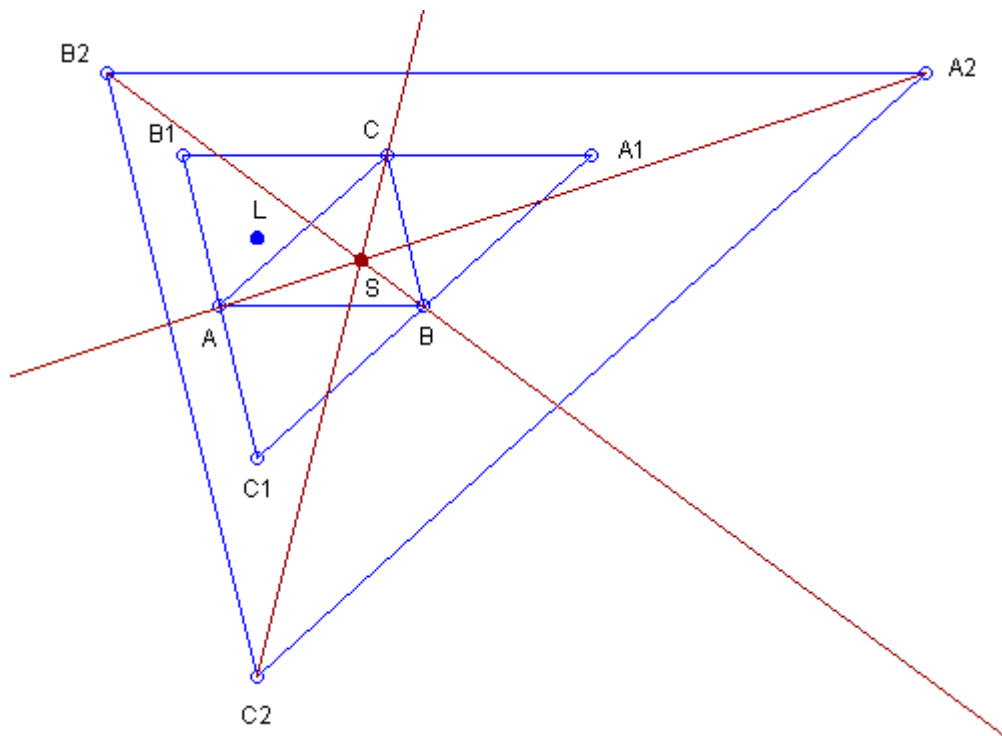
Skordev Point = Homothetic Center of the Antipedal Triangle of the Orthocenter and the Euler Triangle.

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

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

Skordev Point = Homothetic Center of Triangle ABC and the Triangle of the reflections of the de Longchamps Point in the vertices of the Anticomplementary Triangle.

See the Figure:



$A_1B_1C_1$ - Anticomplementary Triangle;

L - de Longchamps Point;

$A_2B_2C_2$ - Triangle of the reflections of the de Longchamps Point in the vertices of the Anticomplementary Triangle;

S - Skordev Point = Homothetic Center of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

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

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

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

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

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

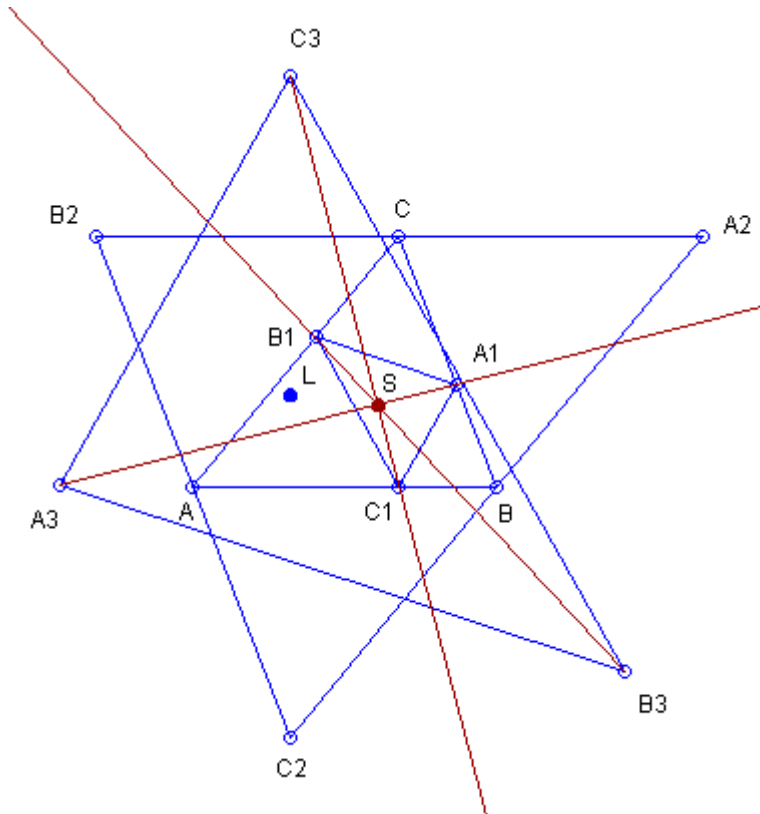
Skordev Point = Homothetic Center of the Medial Triangle and the Triangle of the Skordev Points of the Anticevian Corner Triangles of the Centroid.

Skordev Point = Homothetic Center of the Medial Triangle and the Triangle of the reflections of the de Longchamps Point in the sides of the Anticevian Triangle of the Orthocenter.

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

Skordev Point = Homothetic Center of the Orthic Triangle and the Triangle of the reflections of the de Longchamps Point in the sides of the Anticomplementary Triangle.

See the Figure:



$A_1B_1C_1$ - Orthic Triangle;

$A_2B_2C_2$ - Anticomplementary Triangle;

L - de Longchamps Point;

$A_3B_3C_3$ - Triangle of the reflections of the de Longchamps Point in the sides of the Anticomplementary Triangle;

S - Skordev Point = Homothetic Center of triangles $A_1B_1C_1$ and $A_3B_3C_3$.

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

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

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

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

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

Skordev Point = Homothetic Center of the Anticomplementary Triangle and the Triangle of the Centroids of the Triangulation Triangles of the Orthocenter.

Skordev Point = Homothetic Center of the Anticomplementary Triangle and the Triangle of the Orthocenters of the Corner Triangles of the Centroid.

Skordev Point = Homothetic Center of the Anticomplementary Triangle and the Triangle of the Circumcenters of the Corner Triangles of the Orthocenter.

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

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

Skordev Point = Homothetic Center of the Euler Triangle and the Triangle of the Centroids of the Triangulation Triangles of the Orthocenter.

Skordev Point = Homothetic Center of the Euler Triangle and the Triangle of the reflections of the Skordev Point in the vertices of the Anticomplementary Triangle.

The Skordev Point lies on the Line through the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Centroid and the Orthocenter.

The Skordev Point lies on the Line through the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Centroid and the de Longchamps Point.

The Skordev Point lies on the Line through the Centroid and the Exeter Point.

The Skordev Point lies on the Line through the Centroid and the Schiffler Point.

The Skordev Point lies on the Line through the Centroid and the Gibert Point.

The Skordev Point lies on the Line through the Circumcenter and the Orthocenter.

The Skordev Point lies on the Line through the Circumcenter and the Nine-Point Center.

The Skordev Point lies on the Line through the Circumcenter and the de Longchamps Point.

The Skordev Point lies on the Line through the Circumcenter and the Exeter Point.

The Skordev Point lies on the Line through the Circumcenter and the Schiffler Point.

The Skordev Point lies on the Line through the Circumcenter and the Gibert Point.

The Skordev Point lies on the Line through the Orthocenter and the de Longchamps Point.

The Skordev Point lies on the Line through the Orthocenter and the Schiffler Point.

The Skordev Point lies on the Line through the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Nine-Point Center and the de Longchamps Point.

The Skordev Point lies on the Line through the Nine-Point Center and the Schiffler Point.

The Skordev Point lies on the Line through the Exeter Point and the Orthocenter.

The Skordev Point lies on the Line through the Exeter Point and the Nine-Point Center.

The Skordev Point lies on the Line through the Exeter Point and the de Longchamps Point.

The Skordev Point lies on the Line through the Exeter Point and the Schiffler Point.

The Skordev Point lies on the Line through the Exeter Point and the Gibert Point.

The Skordev Point lies on the Line through the Schiffler Point and the de Longchamps Point.

The Skordev Point lies on the Line through the Schiffler Point and the Skordev Point.

The Skordev Point lies on the Line through the Gibert Point and the Orthocenter.

The Skordev Point lies on the Line through the Gibert Point and the Nine-Point Center.

The Skordev Point lies on the Line through the Gibert Point and the de Longchamps Point.

The Skordev Point lies on the Line through the Gibert Point and the Schiffler Point.

The Skordev Point lies on the Line through the Centroid and the Circumcenter of the Tangential Triangle.

The Skordev Point lies on the Line through the Centroid and the Far-Out Point.

The Skordev Point lies on the Line through the Centroid and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Centroid and the Complement of the Nine-Point Center.

The Skordev Point lies on the Line through the Circumcenter and the Circumcenter of the Tangential Triangle.

The Skordev Point lies on the Line through the Circumcenter and the Far-Out Point.

The Skordev Point lies on the Line through the Circumcenter and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Circumcenter and the Complement of the Nine-Point Center.

The Skordev Point lies on the Line through the Exeter Point and the Far-Out Point.

The Skordev Point lies on the Line through the Exeter Point and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Gibert Point and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Fuhrmann Center and the Nagel Point of the Anticomplementary Triangle.

The Skordev Point lies on the Line through the Incenter and the Midpoint of the Orthocenter and the Spieker Center.

The Skordev Point lies on the Line through the Centroid and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Centroid and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Centroid and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Centroid and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Circumcenter and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Circumcenter and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Circumcenter and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Circumcenter and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Gergonne Point and the Midpoint of the Mittenpunkt and the Orthocenter.

The Skordev Point lies on the Line through the Exeter Point and the Homothetic Center of

the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Exeter Point and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Exeter Point and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Exeter Point and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Gibert Point and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Gibert Point and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Gibert Point and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Gibert Point and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Far-Out Point.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Complement of the Nine-Point Center.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Circumcenter of the Tangential Triangle.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Far-Out Point.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Complement of the Nine-Point Center.

The Skordev Point lies on the Line through the Far-Out Point and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Far-Out Point.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Inverse of the Orthocenter in the Circumcircle.

The Skordev Point lies on the Line through the Gergonne Point of the Anticomplementary Triangle and the Midpoint of the Gergonne Point and the Orthocenter.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Circumcenter of the Tangential Triangle and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Center of the Orthocentroidal Circle and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Far-Out Point and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Far-Out Point and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Far-Out Point and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Far-Out Point and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Inverse of the Orthocenter in the Circumcircle and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Inverse of the Orthocenter in the Circumcircle and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Inverse of the Orthocenter in the

Circumcircle and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Homothetic Center of the Orthic Triangle and the Tangential Triangle.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Complement of the Nine-Point Center and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Homothetic Center of the Orthic Triangle and the Tangential Triangle and the Midpoint of the Centroid and the Circumcenter.

The Skordev Point lies on the Line through the Homothetic Center of the Orthic Triangle and the Tangential Triangle and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Homothetic Center of the Orthic Triangle and the Tangential Triangle and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Midpoint of the Centroid and the Circumcenter and the Midpoint of the Centroid and the Nine-Point Center.

The Skordev Point lies on the Line through the Midpoint of the Centroid and the Circumcenter and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the Midpoint of the Centroid and the Nine-Point Center and the Midpoint of the Nine-Point Center and the Orthocenter.

The Skordev Point lies on the Line through the External Center of Similitude of the Nine-Point Circle and the Spieker Circle and the Midpoint of the Gergonne Point and the Nagel Point.

The Skordev Point lies on the Line through the External Center of Similitude of the Bevan Circle and the Nine-Point Circle and the Internal Center of Similitude of the Apollonius Circle and the Bevan Circle.

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.

Thanks

The figures in this note are produced by using the program C.a.R. (Compass and Ruler), an amazing program created by Rene Grothmann. The Grothmann's program is available for download in the Web: [Rene Grothmann's C.a.R.](#). It is free and open source. The reader may verify easily the statements of this paper by using C.a.R. Many thanks to Rene Grothmann for his wonderful program.

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Dr.Deko Dekov, ddekov@dekovsoft.com.