

Moses Triangles

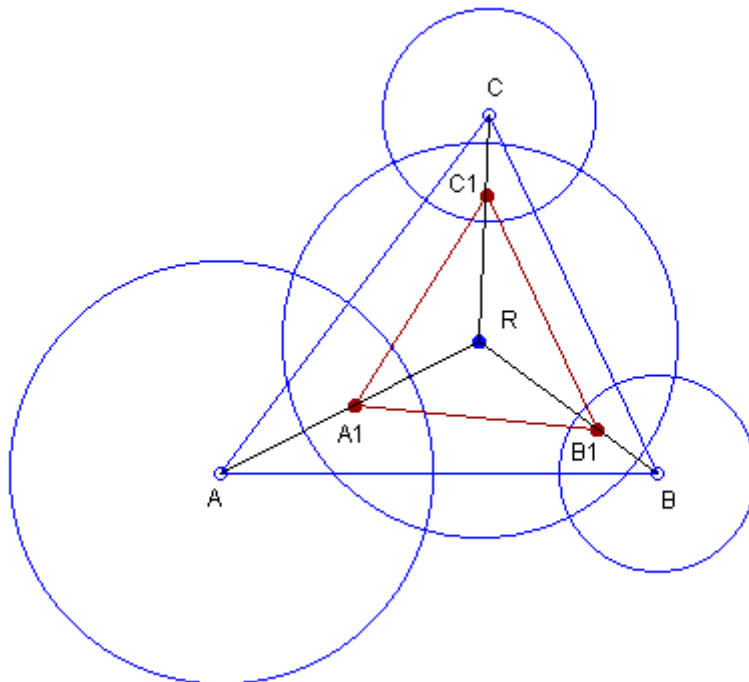
Deko Dekov

Abstract. We define Moses Triangles and by using the computer program "Machine for Questions and Answers", we find perspectives of Moses Triangles.

The Moses triangles are named in honor of Peter J. C. Moses, who defined and studied the Inner and the Outer Moses triangles in the case of the Lucas circles [5]. Peter J. C. Moses [5] identified the perspector between the Inner (Outer) Moses triangle and the Outer Apollonius triangle, for the case of the Lucas circles.

Given three circles (A), (B) and (C) with noncollinear centers A, B and C, respectively. Let (R) is the Radical Circle of the given circles. Let A_1 be the Internal Similitude Center of circles of (R) and (A). Similarly define B_1 and C_1 . The triangle $A_1B_1C_1$ is called the *Inner Moses Triangle of circles (A), (B), (C)*.

See the Figure:

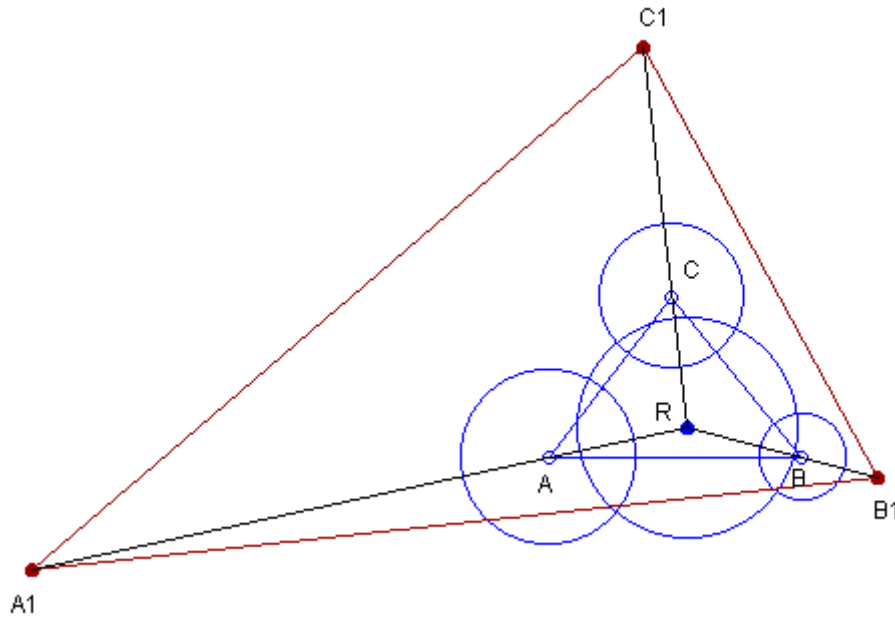


(A), (B), (C) - circles;

(R) - Radical Circle circle of circles (A), (B), (C);
 A_1 - Internal Similitude Center of circles (R) and (A);
 B_1 - Internal Similitude Center of circles (R) and (B);
 C_1 - Internal Similitude Center of circles (R) and (C);
 $A_1B_1C_1$ - Inner Moses Triangle of circles (A), (B), (C).

Similarly, define the *Outer Moses Triangle of circles (A), (B), (C)*.

See the Figure:

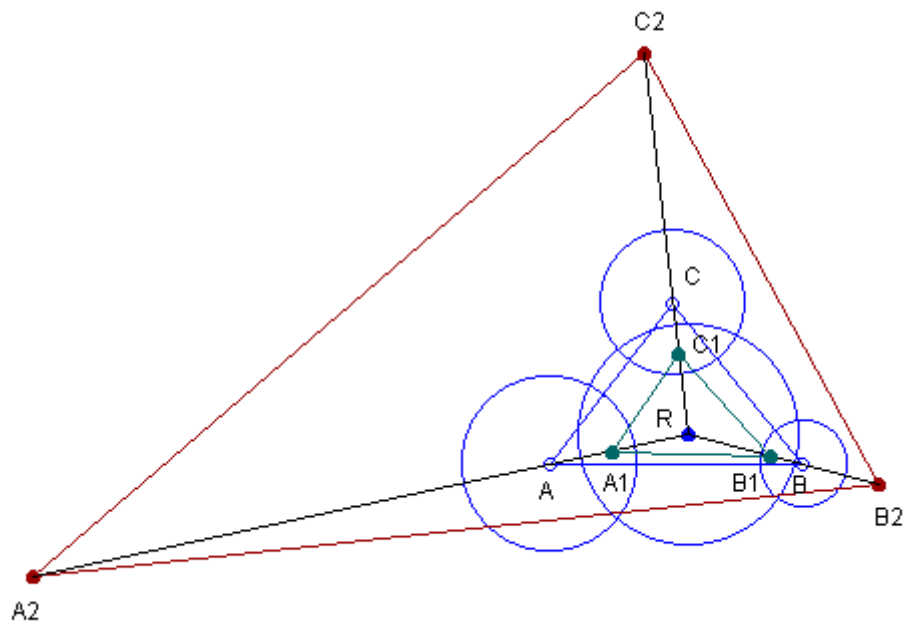


(A), (B), (C) - circles;
(R) - Radical Circle circle of circles (A), (B), (C);
 A_1 - External Similitude Center of circles (R) and (A);
 B_1 - External Similitude Center of circles (R) and (B);
 C_1 - External Similitude Center of circles (R) and (C);
 $A_1B_1C_1$ - Outer Moses Triangle of circles (A), (B), (C).

The Machine for Questions and Answers finds perspectives between triangles and Moses triangles:

The Inner and the Outer Moses triangles of given three circles are perspective. The perspector is the Radical Center of the given three circles.

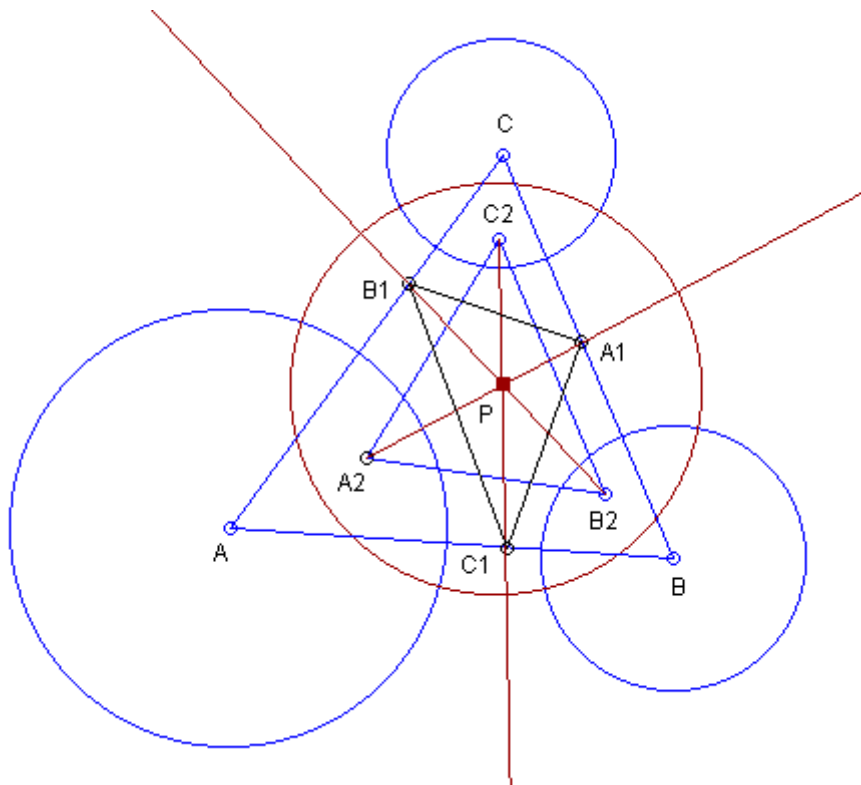
See the Figure:



- (A), (B), (C) - circles;
- (R) - Radical circle of circles (A), (B), (C);
- $A_1B_1C_1$ - Inner Moses Triangle of circles (A), (B), (C);
- $A_2B_2C_2$ - Outer Moses Triangle of circles (A), (B), (C);
- R - Radical Center of circles (A), (B), (C) = perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

The Inner Moses triangle and the Inner Johnson triangle of given three circles are perspective.

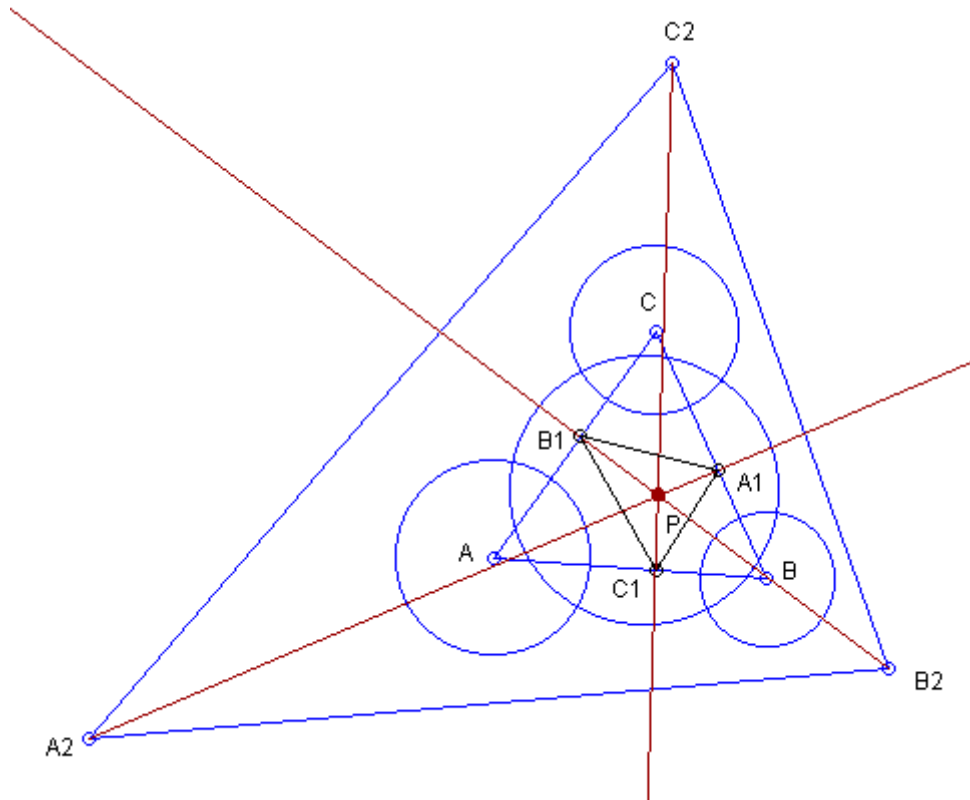
See the Figure:



(A), (B), (C) - circles;
 $A_1B_1C_1$ - Inner Johnson Triangle of circles (A), (B), (C);
 $A_2B_2C_2$ - Inner Moses Triangle of circles (A), (B), (C);
 P - perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

Similarly, the Outer Moses triangle and the Inner Johnson triangle of given three circles are perspective.

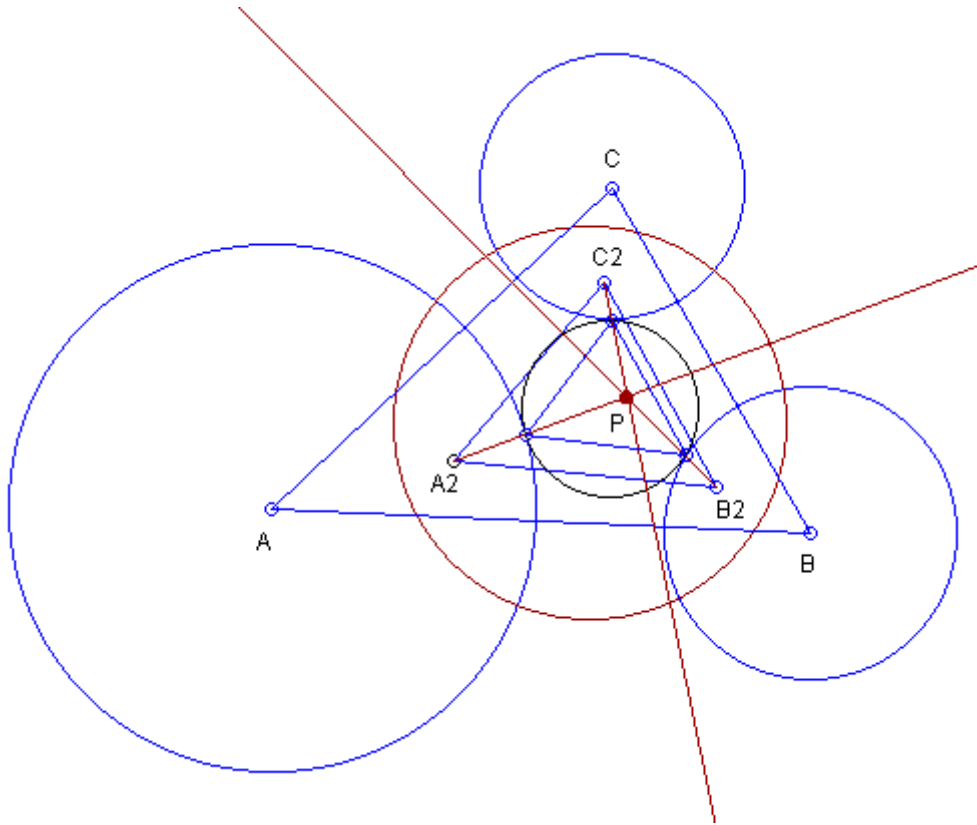
See the Figure:



(A), (B), (C) - circles;
 $A_1B_1C_1$ - Inner Johnson Triangle of circles (A), (B), (C);
 $A_2B_2C_2$ - Outer Moses Triangle of circles (A), (B), (C);
 P - perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

The Inner Moses triangle and the Inner Apollonius triangle of given three circles are perspective.

See the Figure:



(A), (B), (C) - circles;

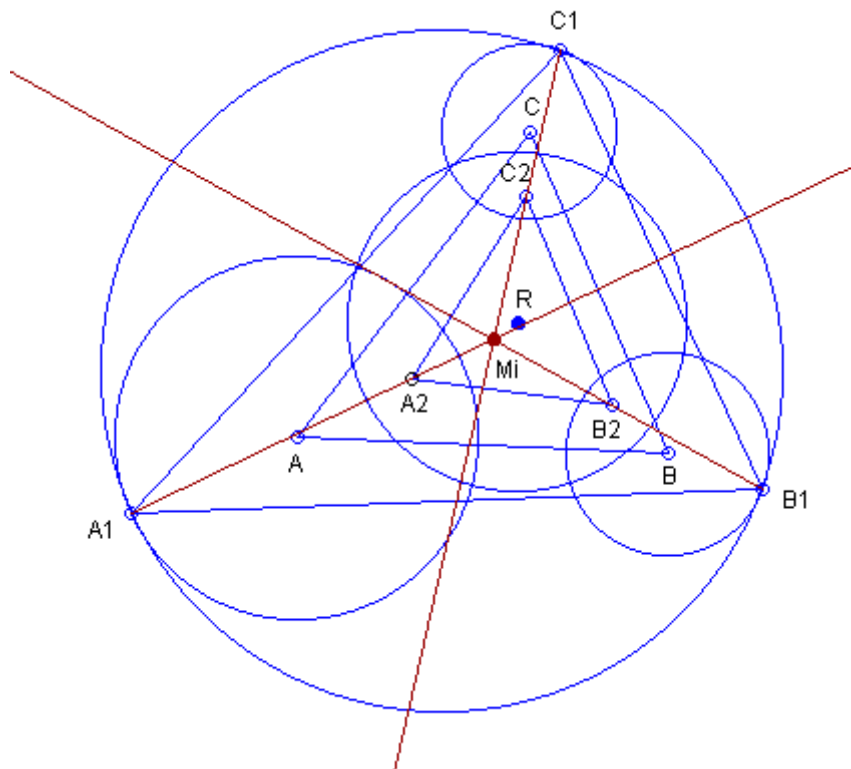
The tangent points of the Inner Apollonius Circle and the given circles are the vertices of the Inner Apollonius Triangle of circles (A), (B), (C);

$A_2B_2C_2$ - Inner Moses Triangle of circles (A), (B), (C);

P - perspector of the Inner Apollonius Triangle and triangle $A_2B_2C_2$.

The Inner Moses triangle and the Outer Apollonius triangle of given three circles are perspective.

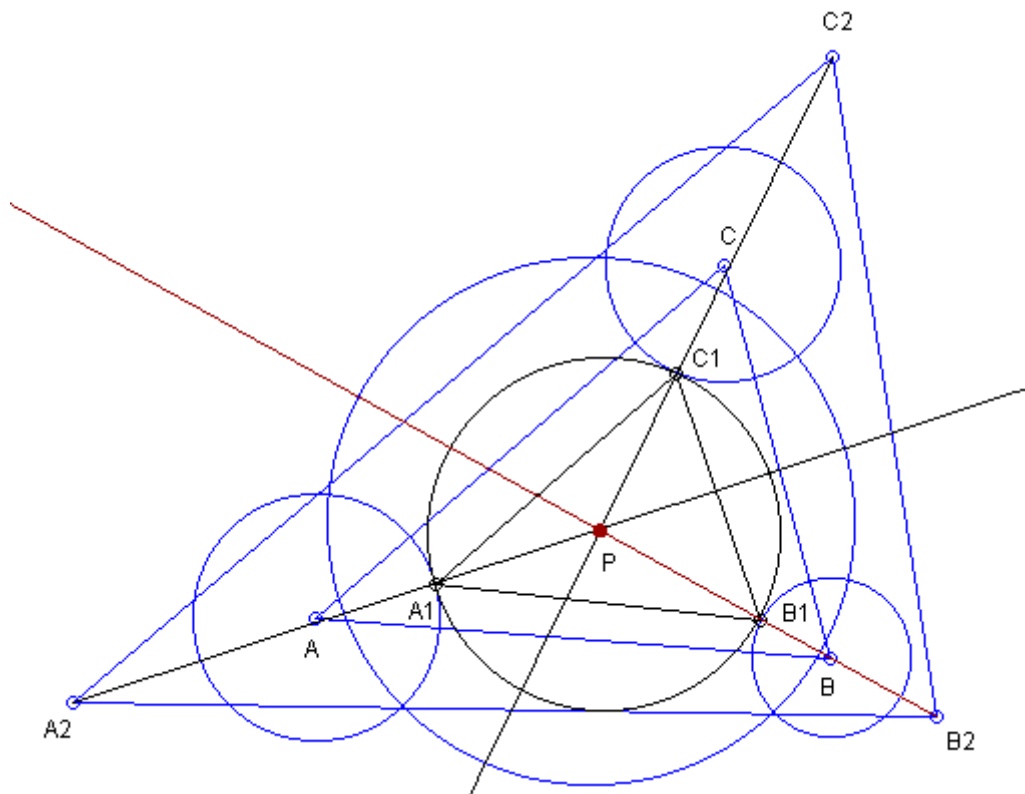
See the Figure:



(A), (B), (C) - circles;
 $A_1B_1C_1$ - Outer Apollonius Triangle of circles (A), (B), (C);
 $A_2B_2C_2$ - Inner Moses Triangle of circles (A), (B), (C);
 M_i - perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

The Outer Moses triangle and the Inner Apollonius triangle of given three circles are perspective.

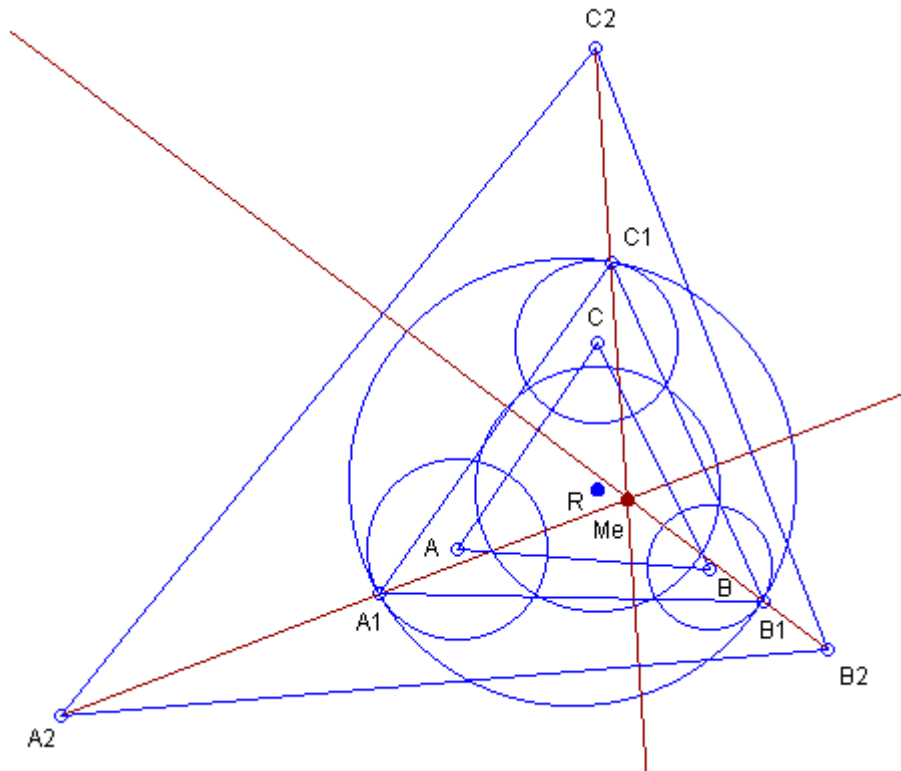
See the Figure:



(A), (B), (C) - circles;
 $A_1B_1C_1$ - Inner Apollonius Triangle of circles (A), (B), (C);
 $A_2B_2C_2$ - Outer Moses Triangle of circles (A), (B), (C);
 P - perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

The Outer Moses triangle and the Outer Apollonius triangle of given three circles are perspective.

See the Figure:



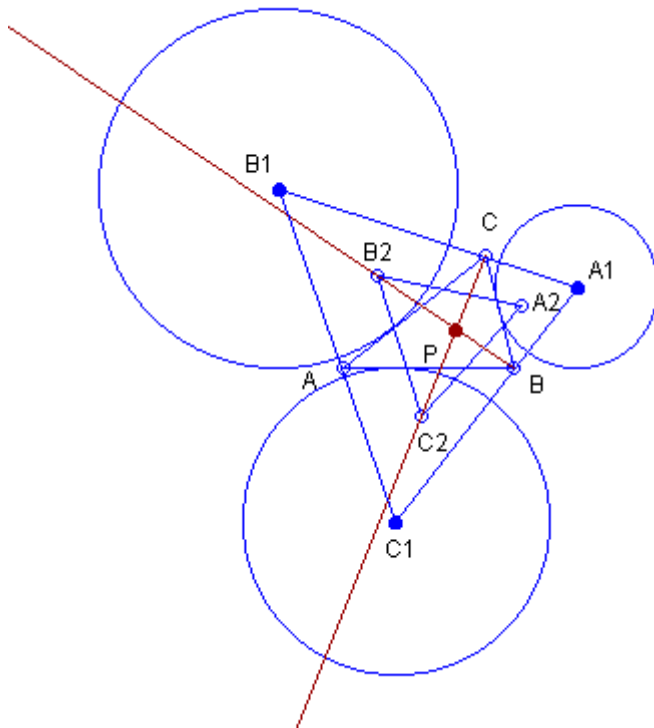
(A), (B), (C) - circles;
 $A_1B_1C_1$ - Outer Apollonius Triangle of circles (A), (B), (C);
 $A_2B_2C_2$ - Outer Moses Triangle of circles (A), (B), (C);
 Me - perspector of triangles $A_1B_1C_1$ and $A_2B_2C_2$.

Examples

The Machine for Questions and Answers finds perspectives between triangles. Examples of perspectives between triangle ABC and Moses triangles are given below.

Triangle ABC and the Inner Moses Triangle of the Excircles are perspective.

See the Figure:



(A₁), (B₁), (C₁) - Excircles;
 A₂B₂C₂ - Inner Moses Triangle of the Excircles;
 P - perspector of triangles ABC and A₂B₂C₂.

Notes.

1. Triangle ABC = Inner Johnson Triangle of the Excircles, hence the result follows from the general theorems.
2. The perspector P is not between the most popular points. By using the Machine for Questions and Answers, we could investigate the point, upon request.

Triangle ABC and the Outer Moses Triangle of the Excircles are perspective.

Triangle ABC and the Inner Moses Triangle of the Incenter-Excenter Circles are homothetic.

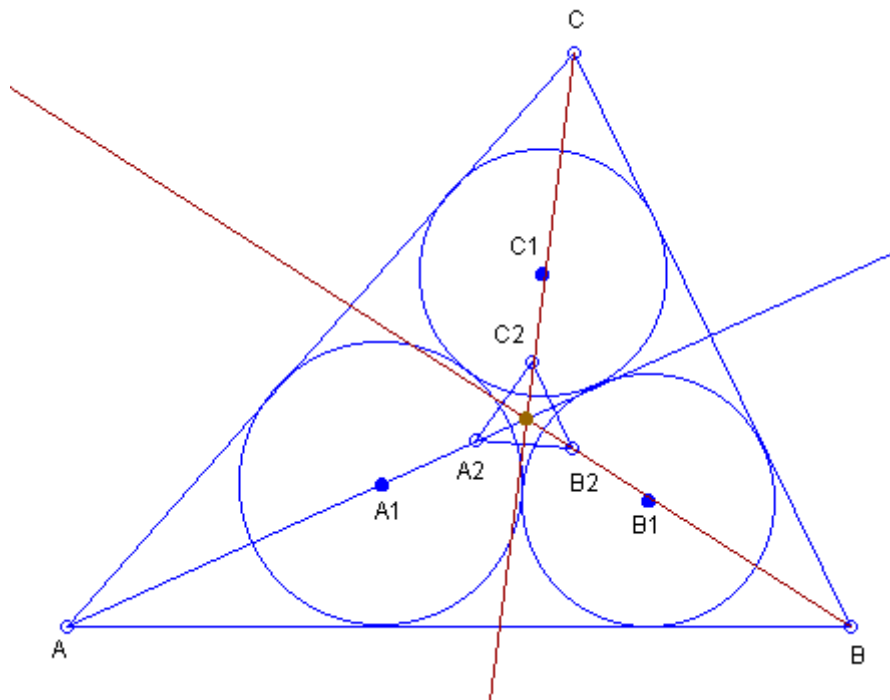
Triangle ABC and the Outer Moses Triangle of the Incenter-Excenter Circles are homothetic.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles are perspective.

Triangle ABC and the Inner Moses Triangle of the Malfatti Circles are perspective.

See the Figure:



$(A_1), (B_1), (C_1)$ - Malfatti Circles;
 $A_2B_2C_2$ - Inner Moses Triangle of the Malfatti Circles;
 The red point - perspector of triangles ABC and $A_2B_2C_2$.

Notes.

1. The perspector is not between the most popular points. By using the Machine for Questions and Answers, we could investigate the point, upon request. We could see that the perspector is the Orthocenter of the de Villiers Triangle (de Villiers Triangle = BCI Triangle). Then we could find properties of this point, if we are interested.

Triangle ABC and the Outer Moses Triangle of the Malfatti Circles are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles are perspective.

Triangle ABC and the Inner Moses Triangle of the Outer Yff Circles are homothetic.

Triangle ABC and the Outer Moses Triangle of the Outer Yff Circles are homothetic.

Triangle ABC and the Inner Moses Triangle of the Excircles of the Yff Central Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Excircles of the Yff Central Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Anticomplementary

Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Anticomplementary Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Antipedal Triangle of the Orthocenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Antipedal Triangle of the Orthocenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Malfatti Central Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Malfatti Central Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Lucas Central Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Lucas Central Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Inner Johnson-Yff Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Inner Johnson-Yff Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Outer Johnson-Yff Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Outer Johnson-Yff Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the Intouch Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Intouch Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Anticomplementary Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the Pedal Triangle of the Incenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Pedal Triangle of the Incenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Antipedal Triangle of the Orthocenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Circum-Orthic Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the Circumcevian Triangle of the Symmedian Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Circumcevian Triangle of the Symmedian Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the First Brocard Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the First Brocard Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the Inner Lucas Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Inner Lucas Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Hexyl Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Johnson Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Lucas Circles of the Inner Gallatly-Kiepert Triangle are perspective.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Inner Gallatly-Kiepert Triangle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Incenter are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Incenter are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the First Droz-Farny Circles of the Triangulation Triangles of the Orthocenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the First Droz-Farny Circles of the Triangulation Triangles of the Orthocenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the

Triangulation Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Triangulation Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Triangulation Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Center of the Sine-Triple-Angle Circle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Center of the Sine-Triple-Angle Circle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Yff Center of Conguence are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Yff Center of Conguence are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Triangulation Triangles of the Center of the Inner Soddy Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Triangulation Triangles of the Center of the Inner Soddy Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Outer Soddy Circles of the Triangulation Triangles of the Center of the Inner Soddy Circle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Outer Soddy Circles of the Triangulation Triangles of the Center of the Inner Soddy Circle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Inner Eppstein Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Inner Eppstein Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Radical Center of the Malfatti Circles are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Radical Center of the Malfatti Circles are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Second Malfatti-Rabinowitz Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Second Malfatti-Rabinowitz Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Incenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Incenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Nine-Point Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Nine-Point Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Spieker Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Spieker Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Excircles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Excircles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Brocard Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Brocard Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Orthocentroidal Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Orthocentroidal Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Parry Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Parry Circles of the Corner

Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Inner Soddy Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Inner Soddy Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Adams Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Adams Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Moses Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Moses Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Half-Moses Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Half-Moses Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Sine-Triple-Angle Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Sine-Triple-Angle Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Inner Johnson-Yff Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Inner Johnson-Yff Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Outer Johnson-Yff Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Outer Johnson-Yff Circles of the Corner Triangles of the Centroid are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Inner Lucas Circles of the Corner Triangles of the Orthocenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Inner Lucas Circles of the Corner Triangles of the Orthocenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Orthocenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Orthocenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Nine-Point Center are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Nine-Point Center are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Symmedian Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Symmedian Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Gergonne Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Gergonne Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Nagel Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Nagel Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Nagel Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Nagel Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Mittenpunkt are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Mittenpunkt are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner

Triangles of the Spieker Center are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Spieker Center are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Feuerbach Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Feuerbach Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Feuerbach Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Feuerbach Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Fermat Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Fermat Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Isodynamic Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Napoleon Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Napoleon Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Outer Napoleon Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Outer Napoleon Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the de Longchamps Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the de Longchamps Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Schiffler Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Schiffler Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Gibert Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Gibert Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Power Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Power Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Third Power Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Third Power Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Moses Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Moses Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Grinberg Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Grinberg Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Brocard Midpoint are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Brocard Midpoint are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Internal Center of Similitude of the Incircle and the Circumcircle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Internal Center of Similitude of the Incircle and the Circumcircle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the External Center of Similitude of the Incircle and the Circumcircle are

perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the External Center of Similitude of the Incircle and the Circumcircle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Prasolov Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Prasolov Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Kiepert Center are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Kiepert Center are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Congruent Isoscelizers Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Congruent Isoscelizers Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Yff Center of Conguence are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Yff Center of Conguence are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Inner Soddy Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Inner Soddy Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Ajima-Malfatti Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Ajima-Malfatti Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Apollonius Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Apollonius Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner

Triangles of the Center of the Brocard Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Brocard Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Equal Parallelians Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Equal Parallelians Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Weill Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Weill Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Kenmotu Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Kenmotu Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Taylor Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Taylor Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Eppstein Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Eppstein Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Eppstein Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Eppstein Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Radical Center of the Malfatti Circles are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Radical Center of the Malfatti Circles are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Vecten Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Outer Vecten Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Vecten Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Inner Vecten Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Johnson Midpoint are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Johnson Midpoint are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Miquel Point of the Incenter are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Miquel Point of the Incenter are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Fourth Power Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Fourth Power Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First de Villiers Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First de Villiers Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second de Villiers Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second de Villiers Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Malfatti-Rabinowitz Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Malfatti-Rabinowitz Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Malfatti-Rabinowitz Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner

Triangles of the Second Malfatti-Rabinowitz Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Radical Center of the Lucas Circles are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Radical Center of the Lucas Circles are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the van Lamoen Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the van Lamoen Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Inner Johnson-Yff Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Inner Johnson-Yff Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Outer Johnson-Yff Circle are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Center of the Outer Johnson-Yff Circle are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Danneels-Apollonius Prespector are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Danneels-Apollonius Prespector are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Malfatti-Moses Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Malfatti-Moses Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Jerabek Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Jerabek Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Jerabek Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Jerabek Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Brocard Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the First Brocard Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Brocard Point are perspective.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Second Brocard Point are perspective.

Triangle ABC and the Inner Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Nine-Point Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Nine-Point Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Spieker Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Spieker Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Excircles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Excircles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Brocard Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Brocard Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Orthocentroidal Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Orthocentroidal Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Parry Circles of the Corner

Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Parry Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Outer Soddy Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Outer Soddy Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Inner Soddy Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Inner Soddy Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Radical Circles of the Lucas Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Adams Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Adams Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Moses Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Moses Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Half-Moses Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Half-Moses Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Sine-Triple-Angle Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Sine-Triple-Angle Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Inner Johnson-Yff Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Inner Johnson-Yff Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Outer Johnson-Yff Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Outer Johnson-Yff Circles of the Corner Triangles of the Anticomplementary Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Tangential Triangle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Tangential Triangle are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Anticevian Triangle of the Third Power Point are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Anticevian Triangle of the Third Power Point are homothetic.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Anticevian Triangle of the External Center of Similitude of the Incircle and the Circumcircle are homothetic.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Anticevian Triangle of the External Center of Similitude of the Incircle and the Circumcircle are homothetic.

Perspectors

The Machine for Questions and Answers could identify the perspectors. Examples of perspectors between triangle ABC and Moses triangles are given below. In the examples below the perspectors are between the basic points.

Triangle ABC and the Inner Moses Triangle of the Incenter-Excenter Circles are homothetic with homothetic center the Incenter.

Triangle ABC and the Outer Moses Triangle of the Incenter-Excenter Circles are homothetic with homothetic center the Incenter.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles are perspective with perspector the Inner Kenmotu Point.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Lucas Central Triangle are perspective with perspector the Inner Kenmotu Point.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Inner Johnson-Yff Triangle are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Inner Johnson-Yff Triangle are perspective with perspector the Incenter.

Triangle ABC and the Inner Moses Triangle of the Soddy Circles of the Outer Johnson-Yff Triangle are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Soddy Circles of the Outer Johnson-Yff Triangle are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Intouch Triangle are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Anticomplementary Triangle are perspective with perspector the Orthocenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Pedal Triangle of the Incenter are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Antipedal Triangle of the Orthocenter are perspective with perspector the Orthocenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Circum-Orthic Triangle are perspective with perspector the Circumcenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Hexyl Triangle are perspective with perspector the Incenter.

Triangle ABC and the Outer Moses Triangle of the Lucas Circles of the Johnson Triangle are perspective with perspector the Orthocenter.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Incenter are homothetic with homothetic center the Incenter.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Triangulation Triangles of the Incenter are homothetic with homothetic center the Incenter.

Triangle ABC and the Inner Moses Triangle of the Triad of the First Droz-Farny Circles of the Triangulation Triangles of the Orthocenter are perspective with perspector the Orthocenter.

Triangle ABC and the Outer Moses Triangle of the Triad of the First Droz-Farny Circles of the Triangulation Triangles of the Orthocenter are perspective with perspector the Orthocenter.

Triangle ABC and the Outer Moses Triangle of the Triad of the Incircles of the Triangulation Triangles of the Center of the Inner Soddy Circle are perspective with respect to the Incenter.

Triangle ABC and the Inner Moses Triangle of the Triad of the Outer Soddy Circles of the Triangulation Triangles of the Center of the Inner Soddy Circle are homothetic with homothetic center the Circumcenter.

Triangle ABC and the Outer Moses Triangle of the Triad of the Outer Soddy Circles of the Triangulation Triangles of the Center of the Inner Soddy Circle are homothetic with homothetic center the Circumcenter.

Triangle ABC and the Inner Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Nagel Point are homothetic with homothetic center the Bevan Point.

Triangle ABC and the Outer Moses Triangle of the Triad of the Circumcircles of the Corner Triangles of the Nagel Point are homothetic with homothetic center the Bevan Point.

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 - 7] 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.

References

1. Quim Castellsaguer, The Triangles Web,
<http://www.xtec.es/~qcastell/ttw/ttweng/portada.html>
2. D. Dekov, Computer-Generated Encyclopedia of Euclidean Geometry, First Edition, 2006, <http://www.dekovsoft.com/>
3. D. Dekov, The Ambiguities of the Natural Language, Journal of Computer-Generated Euclidean Geometry, vol. 2 (2007),
<http://www.dekovsoft.com/j/2007/01/index.htm>
4. C. Kimberling, Encyclopedia of Triangle Centers,
<http://faculty.evansville.edu/ck6/encyclopedia/>
5. Peter J. C. Moses, Circles and Triangle Centers Associated with the Lucas Circles, Forum Geometricorum, volume 5, 2005, pp.97-106, <http://forumgeom.fau.edu/>
6. Eric W. Weisstein, MathWorld - A Wolfram Web Resource.
<http://mathworld.wolfram.com/>
7. Paul Yiu, Introduction to the Geometry of the Triangle, 2001,
<http://www.math.fau.edu/yiu/geometry.html>

Publication Date: 14 December 2007

Dr.Deko Dekov, ddekov@dekovsoft.com.