

1st half-squares triangle

- **Perspective triangles and perspectors:**

(ABC, 4), (anti-Artzt, 33338), (1st anti-Brocard, 33340), (1st anti-circumperp, 638), (anti-Euler, 4), (anti-excenters-reflections, 4), (anti-inverse-in-incircle, 4), (anti-McCay, 33342), (4th anti-tri-squares*, 6564), (anticomplementary, 488), (Artzt, 50007), (1st Brocard-reflected, 33346), (1st Brocard, 33348), (circumorthic, 4), (2nd Conway, 31551), (Ehrmann-vertex, 4), (Euler, 4), (2nd extouch, 4), (3rd extouch, 4), (inner-Fermat, 33350), (outer-Fermat, 33352), (11th Fermat-Dao, 4), (12th Fermat-Dao, 4), (outer-Grebe, 5860), (1st half-diamonds-central, 33354), (2nd half-diamonds-central, 33357), (1st half-diamonds, 33358), (2nd half-diamonds, 33360), (2nd half-squares, 4), (Lucas(-1) antipodal, 12256), (McCay, 33362), (medial, 33364), (midheight, 4), (inner-Napoleon, 33366), (outer-Napoleon, 33368), (1st Neuberg, 33370), (2nd Neuberg, 33372), (orthic, 4), (orthocentroidal, 4), (1st orthosymmedian, 4), (reflection, 4), (3rd tri-squares*, 3068), (inner-Vecten, 488), (outer-Vecten*, 2), (3rd outer-Vecten, 23249)

- **Orthologic triangles and orthologic centers:**

(ABC, 4, 485), (ABC-X3 reflections, 4, 12124), (anti-Aquila, 4, 12269), (anti-Ara, 4, 12148), (anti-Artzt, 5860, 12159), (1st anti-Brocard, 33430, 9868), (5th anti-Brocard, 4, 12211), (6th anti-Brocard, 33430, 12218), (2nd anti-circumperp-tangential, 4, 18988), (anti-Euler, 4, 12257), (anti-inner-Grebe, 4, 19102), (anti-outer-Grebe, 4, 19103), (anti-Mandart-incircle, 4, 12344), (anti-McCay, 33432, 9893), (3rd anti-tri-squares, 12221, 22591), (4th anti-tri-squares, 488, 22646), (anticomplementary, 4, 488), (Aquila, 4, 9907), (Ara, 4, 9922), (Artzt, 5860, 9768), (1st Auriga, 4, 12486), (2nd Auriga, 4, 12487), (1st Brocard-reflected, 33434, 22623), (1st Brocard, 33430, 6228), (5th Brocard, 4, 9987), (6th Brocard, 33430, 9992), (2nd circumperp tangential, 4, 22624), (Ehrmann-mid, 4, 22625), (Euler, 4, 6250), (inner-Fermat, 33436, 22627), (outer-Fermat, 33438, 22629), (3rd Fermat-Dao, 33440, 22631), (4th Fermat-Dao, 33442, 22633), (7th Fermat-Dao, 33440, 13876), (8th Fermat-Dao, 33442, 13875), (11th Fermat-Dao, 33440, 22634), (12th Fermat-Dao, 33442, 22635), (15th Fermat-Dao, 33440, 22636), (16th Fermat-Dao, 33442, 22637), (outer-Garcia, 4, 12788), (Gossard, 4, 12800), (inner-Grebe, 4, 6279), (outer-Grebe, 4, 6278), (1st half-diamonds-central, 33440, 33444), (2nd half-diamonds-central, 33442, 33446), (1st half-diamonds, 33436, 33448), (2nd half-diamonds, 33438,

33450), (2nd half-squares, 12221, 12222), (1st isodynamic-Dao, 33440, 22638), (2nd isodynamic-Dao, 33442, 22639), (3rd isodynamic-Dao, 33440, 31699), (4th isodynamic-Dao, 33442, 31700), (Johnson, 4, 6289), (inner-Johnson, 4, 12929), (outer-Johnson, 4, 12939), (1st Johnson-Yff, 4, 12949), (2nd Johnson-Yff, 4, 12959), (1st Lemoine-Dao, 33440, 22640), (2nd Lemoine-Dao, 33442, 22641), (Lucas homothetic, 4, 13004), (Lucas(-1) homothetic, 4, 13005), (Mandart-incircle, 4, 13082), (McCay, 33432, 13088), (medial, 4, 641), (5th mixtilinear, 4, 7981), (inner-Napoleon, 33442, 6305), (outer-Napoleon, 33440, 6304), (1st Neuberg, 33452, 6312), (2nd Neuberg, 33454, 6311), (2nd outer-Soddy, 31551, 31582), (inner-squares, 20, 485), (1st tri-squares-central, 2, 3068), (2nd tri-squares-central, 33457, 13834), (3rd tri-squares-central, 4, 13879), (4th tri-squares-central, 4, 13880), (1st tri-squares, 5860, 13651), (2nd tri-squares, 5860, 13771), (3rd tri-squares, 488, 13882), (4th tri-squares, 12221, 13881), (inner-Vecten, 12221, 488), (outer-Vecten, 488, 485), (2nd outer-Vecten, 490, 485), (3rd outer-Vecten, 485, 485), (X3-ABC reflections, 4, 12602), (inner-Yff, 4, 10068), (outer-Yff, 4, 10084), (inner-Yff tangents, 4, 13134), (outer-Yff tangents, 4, 13135)

- **Parallelogic triangles and parallelogic centers:**

(1st Parry, 4, 13317), (2nd Parry, 4, 13320)

- **Cyclologic triangles and cyclologic centers:**

None

- **Eulerologic triangles and eulerologic centers:**

(ABC, --, 485), (anti-Ara, 4, --), (anticomplementary, 4, --), (Ehrmann-mid, 4, --), (Johnson, 4, --), (inner-squares, --, 485), (outer-Vecten, 32421, --), (2nd outer-Vecten, --, 485), (3rd outer-Vecten, --, 485)

- **Directly similar triangles and centers of similitude:**

(Lucas tangents, 33502)

- **Inversely similar triangles and centers of similitude:**

None

2nd half-squares triangle

- Perspective triangles and perspectors:**

(ABC, 4), (anti-Artzt, 33339), (1st anti-Brocard, 33341), (1st anti-circumperp, 637), (anti-Euler, 4), (anti-excenters-reflections, 4), (anti-inverse-in-incircle, 4), (anti-McCay, 33343), (3rd anti-tri-squares*, 6565), (anticomplementary, 487), (Artzt, 50008), (1st Brocard-reflected, 33347), (1st Brocard, 33349), (circumorthic, 4), (2nd Conway, 31552), (Ehrmann-vertex, 4), (Euler, 4), (2nd extouch, 4), (3rd extouch, 4), (inner-Fermat, 33353), (outer-Fermat, 33351), (11th Fermat-Dao, 4), (12th Fermat-Dao, 4), (inner-Grebe, 5861), (1st half-diamonds-central, 33356), (2nd half-diamonds-central, 33355), (1st half-diamonds, 33361), (2nd half-diamonds, 33359), (1st half-squares, 4), (Lucas antipodal, 12257), (McCay, 33363), (medial, 33365), (midheight, 4), (inner-Napoleon, 33369), (outer-Napoleon, 33367), (1st Neuberg, 33371), (2nd Neuberg, 33373), (orthic, 4), (orthocentroidal, 4), (1st orthosymmedian, 4), (reflection, 4), (4th tri-squares*, 3069), (inner-Vecten*, 2), (3rd inner-Vecten, 23259), (outer-Vecten, 487)

- Orthologic triangles and orthologic centers:**

(ABC, 4, 486), (ABC-X3 reflections, 4, 12123), (anti-Aquila, 4, 12268), (anti-Ara, 4, 12147), (anti-Artzt, 5861, 12158), (1st anti-Brocard, 33431, 9867), (5th anti-Brocard, 4, 12210), (6th anti-Brocard, 33431, 12217), (2nd anti-circumperp-tangential, 4, 18989), (anti-Euler, 4, 12256), (anti-inner-Grebe, 4, 19104), (anti-outer-Grebe, 4, 19105), (anti-Mandart-incircle, 4, 12343), (anti-McCay, 33433, 9891), (3rd anti-tri-squares, 487, 22617), (4th anti-tri-squares, 12222, 22592), (anticomplementary, 4, 487), (Aquila, 4, 9906), (Ara, 4, 9921), (Artzt, 5861, 9767), (1st Auriga, 4, 12484), (2nd Auriga, 4, 12485), (1st Brocard-reflected, 33435, 22594), (1st Brocard, 33431, 6229), (5th Brocard, 4, 9986), (6th Brocard, 33431, 9991), (2nd circumperp tangential, 4, 22595), (Ehrmann-mid, 4, 22596), (Euler, 4, 6251), (inner-Fermat, 33437, 22598), (outer-Fermat, 33439, 22600), (3rd Fermat-Dao, 33441, 22602), (4th Fermat-Dao, 33443, 22604), (7th Fermat-Dao, 33441, 13929), (8th Fermat-Dao, 33443, 13928), (11th Fermat-Dao, 50104, 22605), (12th Fermat-Dao, 33443, 22606), (15th Fermat-Dao, 33441, 22607), (16th Fermat-Dao, 33443, 22608), (outer-Garcia, 4, 12787), (Gossard, 4, 12799), (inner-Grebe, 4, 6281), (outer-Grebe, 4, 6280), (1st half-diamonds-central, 33441, 33445), (2nd half-diamonds-central, 33443, 33447), (1st half-diamonds, 33437, 33449), (2nd half-diamonds, 33439,

33451), (1st half-squares, 12222, 12221), (1st isodynamic-Dao, 33441, 22609), (2nd isodynamic-Dao, 33443, 22610), (3rd isodynamic-Dao, 33441, 31697), (4th isodynamic-Dao, 33443, 31698), (Johnson, 4, 6290), (inner-Johnson, 4, 12928), (outer-Johnson, 4, 12938), (1st Johnson-Yff, 4, 12948), (2nd Johnson-Yff, 4, 12958), (1st Lemoine-Dao, 33441, 22611), (2nd Lemoine-Dao, 33443, 22612), (Lucas homothetic, 4, 13002), (Lucas(-) homothetic, 4, 13003), (Mandart-incircle, 4, 13081), (McCay, 33433, 13087), (medial, 4, 642), (5th mixtilinear, 4, 7980), (inner-Napoleon, 33443, 6301), (outer-Napoleon, 33441, 6300), (1st Neuberg, 33453, 6316), (2nd Neuberg, 33455, 6315), (2nd inner-Soddy, 31552, 31583), (outer-squares, 20, 486), (1st tri-squares-central, 33456, 13711), (2nd tri-squares-central, 2, 3069), (3rd tri-squares-central, 4, 13921), (4th tri-squares-central, 4, 13933), (1st tri-squares, 5861, 13650), (2nd tri-squares, 5861, 13770), (3rd tri-squares, 12222, 13881), (4th tri-squares, 487, 13934), (inner-Vecten, 487, 486), (2nd inner-Vecten, 489, 486), (3rd inner-Vecten, 486, 486), (outer-Vecten, 12222, 487), (X3-ABC reflections, 4, 12601), (inner-Yff, 4, 10067), (outer-Yff, 4, 10083), (inner-Yff tangents, 4, 13132), (outer-Yff tangents, 4, 13133)

- Parallelogic triangles and parallelogic centers:**

(1st Parry, 4, 13316), (2nd Parry, 4, 13319)

- Cyclologic triangles and cyclologic centers:**

None

- Eulerologic triangles and eulerologic centers:**

(ABC, --, 486), (anti-Ara, 4, --), (anticomplementary, 4, --), (Ehrmann-mid, 4, --), (Johnson, 4, --), (outer-squares, --, 486), (inner-Vecten, 32419, --), (2nd inner-Vecten, --, 486), (3rd inner-Vecten, --, 486)

- Directly similar triangles and centers of similitude:**

(Lucas(-) tangents, 50166)

- Inversely similar triangles and centers of similitude:**

None

1st half-diamonds triangle

- Perspective triangles and perspectors:**

(ABC, 13), (anti-Artzt, 33374), (1st anti-Brocard, 5982), (anti-McCay, 33376), (anti-Ursa minor, 5), (anticomplementary, 628), (Artzt, 50041), (1st Brocard-reflected, 33380), (1st Brocard, 33382), (Ehrmann-mid, 5), (3rd Euler, 5), (4th Euler, 5), (inner-Fermat*, 2), (outer-Fermat, 13), (15th Fermat-Dao, 13), (1st half-diamonds-central, 5), (2nd half-diamonds-central, 5), (2nd half-diamonds, 5), (1st half-squares, 33358), (2nd half-squares, 33361), (1st isodynamic-Dao, 13), (3rd isodynamic-Dao, 13), (2nd Lemoine-Dao, 13), (McCay, 33384), (medial, 619), (inner-Napoleon, 33386), (outer-Napoleon, 628), (1st Neuberg, 33388), (2nd Neuberg, 50053), (submedial, 5), (inner-Vecten, 33392), (outer-Vecten, 33394), (Wasat, 33396)

- Orthologic triangles and orthologic centers:**

(ABC, 5, 18), (ABC-X3 reflections, 5, 22843), (anti-Aquila, 5, 11740), (anti-Ara, 5, 22481), (anti-Artzt, 33458, 22487), (1st anti-Brocard, 25559, 22506), (5th anti-Brocard, 5, 22522), (6th anti-Brocard, 25559, 22526), (2nd anti-circumperpendicular, 5, 18972), (anti-Euler, 5, 22531), (anti-inner-Grebe, 5, 19069), (anti-outer-Grebe, 5, 19072), (anti-Mandart-incircle, 5, 22557), (anti-McCay, 33460, 22567), (3rd anti-tri-squares, 50112, 22597), (4th anti-tri-squares, 33448, 22626), (anticomplementary, 5, 628), (Aquila, 5, 22651), (Ara, 5, 22656), (Artzt, 33458, 22665), (1st Auriga, 5, 22669), (2nd Auriga, 5, 22673), (1st Brocard-reflected, 33462, 22683), (1st Brocard, 25559, 22736), (5th Brocard, 5, 22745), (6th Brocard, 25559, 22748), (2nd circumperpendicular, 5, 22771), (Ehrmann-mid, 5, 22794), (Euler, 5, 22831), (inner-Fermat, 628, 22114), (outer-Fermat, 33465, 22845), (3rd Fermat-Dao, 13, 22846), (4th Fermat-Dao, 619, 18), (7th Fermat-Dao, 13, 22847), (8th Fermat-Dao, 619, 22848), (11th Fermat-Dao, 13, 16628), (12th Fermat-Dao, 619, 16627), (15th Fermat-Dao, 13, 22849), (16th Fermat-Dao, 619, 22850), (outer-Garcia, 5, 22851), (Gossard, 5, 22852), (inner-Grebe, 5, 22853), (outer-Grebe, 5, 22854), (1st half-diamonds-central, 13, 18), (2nd half-diamonds-central, 619, 630), (2nd half-diamonds, 33465, 33464), (1st half-squares, 33448, 33436), (2nd half-squares, 33449, 33437), (1st isodynamic-Dao, 13, 22855), (2nd isodynamic-Dao, 619, 22856), (3rd isodynamic-Dao, 13, 31703), (4th isodynamic-Dao, 619, 31706),

(Johnson, 5, 16627), (inner-Johnson, 5, 22857), (outer-Johnson, 5, 22858), (1st Johnson-Yff, 5, 22859), (2nd Johnson-Yff, 5, 22860), (1st Lemoine-Dao, 13, 22861), (2nd Lemoine-Dao, 619, 22862), (Lucas homothetic, 5, 22863), (Lucas(--homothetic, 5, 22864), (Mandart-incircle, 5, 22865), (McCay, 33460, 22866), (medial, 5, 630), (5th mixtilinear, 5, 22867), (inner-Napoleon, 619, 18), (outer-Napoleon, 13, 628), (1st Neuberg, 33466, 22869), (2nd Neuberg, 33468, 22871), (1st tri-squares-central, 33470, 22873), (2nd tri-squares-central, 33472, 22875), (3rd tri-squares-central, 5, 22876), (4th tri-squares-central, 5, 22877), (1st tri-squares, 33458, 22878), (2nd tri-squares, 33458, 22879), (3rd tri-squares, 33448, 22880), (4th tri-squares, 33449, 22881), (inner-Vecten, 33449, 22882), (outer-Vecten, 33448, 22883), (X3-ABC reflections, 5, 16628), (inner-Yff, 5, 22884), (outer-Yff, 5, 22885), (inner-Yff tangents, 5, 22886), (outer-Yff tangents, 5, 22887)

- Parallelogic triangles and parallelogic centers:**

(1st Parry, 5, 22888), (2nd Parry, 5, 22889)

- Cyclologic triangles and cyclologic centers:**

(ABC, 3480, 13), (1st half-diamonds-central, 14082, 619), (2nd half-diamonds, 33496, 33497), (medial, 619, 33498), (inner-Napoleon, 14082, 13), (Wasat, 33499, 0)

- Eulerologic triangles and eulerologic centers:**

(Euler, 5, --), (inner-Fermat, --, 533), (4th Fermat-Dao, --, 18), (15th Fermat-Dao, 13, --), (1st half-diamonds-central, --, 18), (1st isodynamic-Dao, 13, --), (3rd isodynamic-Dao, 13, --), (inner-Napoleon, --, 18)

- Directly similar triangles and centers of similitude:**

None

- Inversely similar triangles and centers of similitude:**

None

2nd half-diamonds triangle

- Perspective triangles and perspectors:**

(ABC, 14), (anti-Artzt, 33375), (1st anti-Brocard, 5983), (anti-McCay, 33377), (anti-Ursa minor, 5), (anticomplementary, 627), (Artzt, 33379), (1st Brocard-reflected, 33381), (1st Brocard, 33383), (Ehrmann-mid, 5), (3rd Euler, 5), (4th Euler, 5), (inner-Fermat, 14), (outer-Fermat*, 2), (16th Fermat-Dao, 14), (1st half-diamonds-central, 5), (2nd half-diamonds-central, 5), (1st half-diamonds, 5), (1st half-squares, 33360), (2nd half-squares, 33359), (2nd isodynamic-Dao, 14), (4th isodynamic-Dao, 14), (1st Lemoine-Dao, 14), (McCay, 33385), (medial, 618), (inner-Napoleon, 627), (outer-Napoleon, 33387), (1st Neuberg, 33389), (2nd Neuberg, 33391), (submedial, 5), (inner-Vecten, 33395), (outer-Vecten, 33393), (Wasat, 33397)

- Orthologic triangles and orthologic centers:**

(ABC, 5, 17), (ABC-X3 reflections, 5, 22890), (anti-Aquila, 5, 11739), (anti-Ara, 5, 22482), (anti-Artzt, 33459, 22488), (1st anti-Brocard, 25560, 22508), (5th anti-Brocard, 5, 22523), (6th anti-Brocard, 25560, 22527), (2nd anti-circumper-tangential, 5, 18973), (anti-Euler, 5, 22532), (anti-inner-Grebe, 5, 19071), (anti-outer-Grebe, 5, 19070), (anti-Mandart-incircle, 5, 22558), (anti-McCay, 33461, 22569), (3rd anti-tri-squares, 33451, 22599), (4th anti-tri-squares, 33450, 22628), (anticomplementary, 5, 627), (Aquila, 5, 22652), (Ara, 5, 22657), (Artzt, 33459, 22666), (1st Auriga, 5, 22670), (2nd Auriga, 5, 22674), (1st Brocard-reflected, 33463, 22685), (1st Brocard, 25560, 22737), (5th Brocard, 5, 22746), (6th Brocard, 25560, 22749), (2nd circumper tangential, 5, 22772), (Ehrmann-mid, 5, 22795), (Euler, 5, 22832), (inner-Fermat, 50127, 22844), (outer-Fermat, 627, 22113), (3rd Fermat-Dao, 618, 17), (4th Fermat-Dao, 14, 22891), (7th Fermat-Dao, 618, 22892), (8th Fermat-Dao, 14, 22893), (11th Fermat-Dao, 618, 16626), (12th Fermat-Dao, 14, 16629), (15th Fermat-Dao, 618, 22894), (16th Fermat-Dao, 14, 22895), (outer-Garcia, 5, 22896), (Gossard, 5, 22897), (inner-Grebe, 5, 22898), (outer-Grebe, 5, 22899), (1st half-diamonds-central, 618, 629), (2nd half-diamonds-central, 14, 17), (1st half-diamonds, 33464, 33465), (1st half-squares, 33450, 50101), (2nd half-squares, 33451, 33439), (1st isodynamic-Dao, 618, 22900), (2nd isodynamic-Dao, 14, 22901), (3rd isodynamic-Dao, 618, 31705), (4th isodynamic-Dao, 14, 31704),

(Johnson, 5, 16626), (inner-Johnson, 5, 22902), (outer-Johnson, 5, 22903), (1st Johnson-Yff, 5, 22904), (2nd Johnson-Yff, 5, 22905), (1st Lemoine-Dao, 618, 22906), (2nd Lemoine-Dao, 14, 22907), (Lucas homothetic, 5, 22908), (Lucas(--) homothetic, 5, 22909), (Mandart-incircle, 5, 22910), (McCay, 33461, 22911), (medial, 5, 629), (5th mixtilinear, 5, 22912), (inner-Napoleon, 14, 627), (outer-Napoleon, 618, 17), (1st Neuberg, 33467, 22914), (2nd Neuberg, 33469, 22916), (1st tri-squares-central, 33471, 22918), (2nd tri-squares-central, 33473, 22920), (3rd tri-squares-central, 5, 22921), (4th tri-squares-central, 5, 22922), (1st tri-squares, 33459, 22923), (2nd tri-squares, 33459, 22924), (3rd tri-squares, 33450, 22925), (4th tri-squares, 33451, 22926), (inner-Vecten, 33451, 22927), (outer-Vecten, 33450, 22928), (X3-ABC reflections, 5, 16629), (inner-Yff, 5, 22929), (outer-Yff, 5, 22930), (inner-Yff tangents, 5, 22931), (outer-Yff tangents, 5, 22932)

- Parallelogic triangles and parallelogic centers:**

(1st Parry, 5, 22933), (2nd Parry, 5, 22934)

- Cyclologic triangles and cyclologic centers:**

(ABC, 3479, 14), (2nd half-diamonds-central, 14081, 618), (1st half-diamonds, 33497, 33496), (medial, 618, 33500), (outer-Napoleon, 14081, 14), (Wasat, 33501, 0)

- Eulerologic triangles and eulerologic centers:**

(Euler, 5, --), (outer-Fermat, --, 532), (3rd Fermat-Dao, --, 17), (16th Fermat-Dao, 14, --), (2nd half-diamonds-central, --, 17), (2nd isodynamic-Dao, 14, --), (4th isodynamic-Dao, 14, --), (outer-Napoleon, --, 17)

- Directly similar triangles and centers of similitude:**

None

- Inversely similar triangles and centers of similitude:**

None

1st half-diamonds-central equilateral triangle

- Perspective triangles and perspectors:**

(ABC, 18), (anti-Artzt, 33398), (1st anti-Brocard, 33400), (anti-McCay, 33402), (anti-Ursa minor, 5), (anticomplementary, 50067), (Artzt, 33406), (1st Brocard-reflected, 33408), (1st Brocard, 33410), (Ehrmann-mid, 5), (3rd Euler, 5), (4th Euler, 5), (inner-Fermat, 33412), (outer-Fermat, 33414), (3rd Fermat-Dao*, 62), (4th Fermat-Dao\$, 18), (7th Fermat-Dao*, 395), (11th Fermat-Dao*, 3), (15th Fermat-Dao*, 33416), (2nd half-diamonds-central\$, 5), (1st half-diamonds, 5), (2nd half-diamonds, 5), (1st half-squares, 33354), (2nd half-squares, 33356), (1st isodynamic-Dao*, 16966), (3rd isodynamic-Dao*, 16), (1st Lemoine-Dao*, 18581), (McCay, 33418), (medial, 629), (inner-Napoleon\$, 18), (outer-Napoleon*, 2), (1st Neuberg, 33420), (2nd Neuberg, 33422), (submedial, 5), (inner-Vecten, 33424), (outer-Vecten, 33426), (Wasat, 33428)

- Orthologic triangles and orthologic centers:**

(ABC, 5, 13), (ABC-X3 reflections, 5, 5473), (anti-Aquila, 5, 11705), (anti-Ara, 5, 12142), (anti-Artzt, 33474, 12155), (1st anti-Brocard, 6774, 5979), (5th anti-Brocard, 5, 12205), (6th anti-Brocard, 6774, 12214), (2nd anti-circumperp-tangential, 5, 18974), (anti-Euler, 5, 6770), (anti-inner-Grebe, 5, 19073), (anti-outer-Grebe, 5, 19074), (anti-Mandart-incircle, 5, 12337), (anti-McCay, 33476, 8595), (3rd anti-tri-squares, 33445, 22601), (4th anti-tri-squares, 33444, 22630), (anticomplementary, 5, 616), (Aquila, 5, 9901), (Ara, 5, 9916), (Artzt, 33474, 9762), (1st Auriga, 5, 12472), (2nd Auriga, 5, 12473), (1st Brocard-reflected, 33478, 22687), (1st Brocard, 6774, 3643), (5th Brocard, 5, 9982), (6th Brocard, 6774, 9989), (2nd circumperp tangential, 5, 22773), (Ehrmann-mid, 5, 22796), (Euler, 5, 5478), (inner-Fermat, 18, 616), (outer-Fermat, 629, 13), (2nd Fermat-Dao, 33481, 25207), (3rd Fermat-Dao, 2, 16267), (4th Fermat-Dao, 5460, 5469), (6th Fermat-Dao, 33481, 25152), (7th Fermat-Dao, 2, 396), (8th Fermat-Dao, 5460, 115), (10th Fermat-Dao, 33481, 25153), (11th Fermat-Dao, 2, 381), (12th Fermat-Dao, 5460, 25154), (14th Fermat-Dao, 33481, 25155), (15th Fermat-Dao, 2, 13), (16th Fermat-Dao, 5460, 25156), (outer-Garcia, 5, 12781), (Gossard, 5, 12793), (inner-Grebe, 5, 6270), (outer-Grebe, 5, 6268), (2nd half-diamonds-central, 5460, 5459), (1st half-diamonds, 18, 13), (2nd half-diamonds, 629, 618), (1st half-squares, 33444, 33440), (2nd half-squares, 33445, 33441), (1st isodynamic-Dao, 2, 13), (2nd isodynamic-Dao, 5460, 22998), (3rd isodynamic-Dao, 2, 13), (4th isodynamic-Dao, 5460, 31710), (Johnson, 5, 5617), (inner-Johnson, 5, 12922), (outer-Johnson, 5, 12932), (1st Johnson-Yff, 5, 12942), (2nd Johnson-Yff, 5, 12952), (1st Lemoine-Dao, 2, 10654), (2nd Lemoine-Dao, 5460, 13), (inner-Le Viet An, 33481, 14181), (Lucas homothetic, 5, 12990), (Lucas(--) homothetic, 5, 12991), (Mandart-incircle, 5, 13076), (McCay, 33476, 13084), (medial, 5, 618), (5th mixtilinear, 5, 7975), (inner-Napoleon, 5460, 5463), (outer-Napoleon, 2, 2), (1st

Neuberg, 33482, 6582), (2nd Neuberg, 50147, 6298), (1st tri-squares-central, 33486, 13705), (2nd tri-squares-central, 33488, 13825), (3rd tri-squares-central, 5, 13917), (4th tri-squares-central, 5, 13982), (1st tri-squares, 33474, 13646), (2nd tri-squares, 33474, 13765), (3rd tri-squares, 33444, 13876), (4th tri-squares, 33445, 13929), (inner-Vecten, 33445, 6302), (outer-Vecten, 33444, 6306), (X3-ABC reflections, 5, 13103), (inner-Yff, 5, 10062), (outer-Yff, 5, 10078), (inner-Yff tangents, 5, 13105), (outer-Yff tangents, 5, 13107)

- Parallelogic triangles and parallelogic centers:**

(2nd Fermat-Dao, 50154, 25216), (4th Fermat-Dao, 619, 16530), (6th Fermat-Dao, 33491, 25229), (8th Fermat-Dao, 619, 9115), (10th Fermat-Dao, 33491, 25231), (12th Fermat-Dao, 619, 5617), (14th Fermat-Dao, 33491, 25233), (16th Fermat-Dao, 619, 25235), (2nd half-diamonds-central, 619, 618), (2nd isodynamic-Dao, 619, 23005), (4th isodynamic-Dao, 619, 6782), (2nd Lemoine-Dao, 619, 23006), (inner-Le Viet An, 33491, 14187), (inner-Napoleon, 619, 13), (1st Parry, 5, 13305), (2nd Parry, 5, 9200)

- Cyclologic triangles and cyclologic centers:**

(2nd half-diamonds-central, 619, 618), (1st half-diamonds, 619, 14082), (medial, 619, 125), (inner-Napoleon, 619, 13)

- Eulerologic triangles and eulerologic centers:**

(Euler, 5, --), (3rd Fermat-Dao, 0, 0), (7th Fermat-Dao, 0, 0), (11th Fermat-Dao, 0, 0), (15th Fermat-Dao, 0, 0), (1st half-diamonds, 18, --), (1st isodynamic-Dao, 0, 0), (3rd isodynamic-Dao, 0, 0), (1st Lemoine-Dao, 0, 0), (medial, 5, --)

- Directly similar triangles and centers of similitude:**

(circumnmal, 0), (circumtangential, 0), (1st Fermat-Dao, 0), (5th Fermat-Dao, 0), (9th Fermat-Dao, 0), (13th Fermat-Dao, 0), (outer-Le Viet An, 0), (1st Morley-midpoint, 0), (2nd Morley-midpoint, 0), (3rd Morley-midpoint, 0), (1st Morley, 0), (2nd Morley, 0), (3rd Morley, 0), (Roussel, 0), (Stammler, 0)

- Inversely similar triangles and centers of similitude:**

(2nd Fermat-Dao, 0), (4th Fermat-Dao, 22891), (6th Fermat-Dao, 0), (8th Fermat-Dao, 0), (10th Fermat-Dao, 0), (12th Fermat-Dao, 0), (14th Fermat-Dao, 0), (16th Fermat-Dao, 0), (2nd half-diamonds-central, 2), (2nd isodynamic-Dao, 0), (4th isodynamic-Dao, 0), (2nd Lemoine-Dao, 0), (inner-Le Viet An, 0), (inner-Napoleon, 2)

2nd half-diamonds-central equilateral triangle

- Perspective triangles and perspectors:**

(ABC, 17), (anti-Artzt, 33399), (1st anti-Brocard, 33401), (anti-McCay, 33403), (anti-Ursa minor, 5), (anticomplementary, 33405), (Artzt, 33407), (1st Brocard-reflected, 33409), (1st Brocard, 33411), (Ehrmann-mid, 5), (3rd Euler, 5), (4th Euler, 5), (inner-Fermat, 33415), (outer-Fermat, 33413), (3rd Fermat-Dao\$, 17), (4th Fermat-Dao*, 61), (8th Fermat-Dao*, 396), (12th Fermat-Dao*, 3), (16th Fermat-Dao*, 33417), (1st half-diamonds-central\$, 5), (1st half-diamonds, 5), (2nd half-diamonds, 5), (1st half-squares, 33357), (2nd half-squares, 33355), (2nd isodynamic-Dao*, 16967), (4th isodynamic-Dao*, 15), (2nd Lemoine-Dao*, 18582), (McCay, 33419), (medial, 630), (inner-Napoleon*, 2), (outer-Napoleon\$, 17), (1st Neuberg, 33421), (2nd Neuberg, 33423), (submedial, 5), (inner-Vecten, 33427), (outer-Vecten, 33425), (Wasat, 33429)

- Orthologic triangles and orthologic centers:**

(ABC, 5, 14), (ABC-X3 reflections, 5, 5474), (anti-Aquila, 5, 11706), (anti-Ara, 5, 12141), (anti-Artzt, 33475, 12154), (1st anti-Brocard, 6771, 5978), (5th anti-Brocard, 5, 12204), (6th anti-Brocard, 6771, 12213), (2nd anti-circumperp-tangential, 5, 18975), (anti-Euler, 5, 6773), (anti-inner-Grebe, 5, 19075), (anti-outer-Grebe, 5, 19076), (anti-Mandart-incircle, 5, 12336), (anti-McCay, 33477, 8594), (3rd anti-tri-squares, 33447, 22603), (4th anti-tri-squares, 33446, 22632), (anticomplementary, 5, 617), (Aquila, 5, 9900), (Ara, 5, 9915), (Artzt, 33475, 9760), (1st Auriga, 5, 12470), (2nd Auriga, 5, 12471), (1st Brocard-reflected, 33479, 22689), (1st Brocard, 6771, 3642), (5th Brocard, 5, 9981), (6th Brocard, 6771, 9988), (circumnormal, 33492, 13594), (2nd circumperp tangential, 5, 22774), (circumtangential, 33492, 13593), (Ehrmann-mid, 5, 22797), (Euler, 5, 5479), (inner-Fermat, 630, 14), (outer-Fermat, 17, 617), (1st Fermat-Dao, 33480, 25208), (3rd Fermat-Dao, 5459, 5470), (4th Fermat-Dao, 2, 16268), (5th Fermat-Dao, 50143, 25162), (7th Fermat-Dao, 5459, 115), (8th Fermat-Dao, 2, 395), (9th Fermat-Dao, 33480, 25163), (11th Fermat-Dao, 5459, 25164), (12th Fermat-Dao, 2, 381), (13th Fermat-Dao, 33480, 25165), (15th Fermat-Dao, 5459, 25166), (16th Fermat-Dao, 2, 14), (outer-Garcia, 5, 12780), (Gossard, 5, 12792), (inner-Grebe, 5, 6271), (outer-Grebe, 5, 6269), (1st half-diamonds-central, 5459, 5460), (1st half-diamonds, 630, 619), (2nd half-diamonds, 17, 14), (1st half-squares, 33446, 33442), (2nd half-squares, 33447, 33443), (1st isodynamic-Dao, 5459, 22997), (2nd isodynamic-Dao, 2, 14), (3rd isodynamic-Dao, 5459, 31709), (4th isodynamic-Dao, 2, 14), (Johnson, 5, 5613), (inner-Johnson, 5, 12921), (outer-Johnson, 5, 12931), (1st Johnson-Yff, 5, 12941), (2nd Johnson-Yff, 5, 12951), (1st Lemoine-Dao, 5459, 14), (2nd Lemoine-Dao, 2, 10653), (outer-Le Viet An, 33480, 14177), (Lucas homothetic, 5, 12988), (Lucas--) homothetic, 5, 12989), (Mandart-incircle, 5, 13075), (McCay, 33477, 13083), (medial, 5, 619), (5th mixtilinear, 5, 7974), (1st Morley-midpoint, 33492, 0), (2nd Morley-midpoint, 33492, 0), (3rd Morley-midpoint, 33492, 0), (1st Morley, 33492, 0), (2nd Morley, 33492, 0), (3rd Morley, 33492, 0), (inner-Napoleon, 2, 2), (outer-Napoleon, 5459, 5464), (1st Neuberg, 33483, 6295), (2nd Neuberg, 33485, 6299), (Roussel, 33492, 0), (Stammler, 33492, 8009), (1st tri-squares-central, 33487, 13703), (2nd tri-squares-central, 33489, 13823), (3rd tri-squares-central, 5, 13916), (4th tri-squares-central, 5, 13981), (1st tri-squares, 33475, 13645),

(2nd tri-squares, 33475, 13764), (3rd tri-squares, 33446, 13875), (4th tri-squares, 33447, 13928), (inner-Vecten, 33447, 6303), (outer-Vecten, 33446, 6307), (X3-ABC reflections, 5, 13102), (inner-Yff, 5, 10061), (outer-Yff, 5, 10077), (inner-Yff tangents, 5, 13104), (outer-Yff tangents, 5, 13106)

- Parallelogic triangles and parallelogic centers:**

(circumnormal, 33493, 13593), (circumtangential, 33493, 13594), (1st Fermat-Dao, 33490, 25213), (3rd Fermat-Dao, 618, 16529), (5th Fermat-Dao, 33490, 25230), (7th Fermat-Dao, 618, 9117), (9th Fermat-Dao, 50153, 25232), (11th Fermat-Dao, 618, 5613), (13th Fermat-Dao, 33490, 25234), (15th Fermat-Dao, 618, 25236), (1st half-diamonds-central, 618, 619), (1st isodynamic-Dao, 618, 23004), (3rd isodynamic-Dao, 618, 6783), (1st Lemoine-Dao, 618, 23013), (outer-Le Viet An, 33490, 14185), (1st Morley-midpoint, 33493, 0), (2nd Morley-midpoint, 33493, 0), (3rd Morley-midpoint, 33493, 0), (1st Morley, 33493, 0), (2nd Morley, 33493, 0), (3rd Morley, 33493, 0), (outer-Napoleon, 618, 14), (1st Parry, 5, 13304), (2nd Parry, 5, 9201), (Roussel, 33493, 0), (Stammler, 33493, 8008)

- Cyclologic triangles and cyclologic centers:**

(1st half-diamonds-central, 618, 619), (2nd half-diamonds, 618, 14081), (medial, 618, 125), (outer-Napoleon, 618, 14)

- Eulerologic triangles and eulerologic centers:**

(Euler, 5, --), (4th Fermat-Dao, 0, 0), (8th Fermat-Dao, 0, 0), (12th Fermat-Dao, 0, 0), (16th Fermat-Dao, 0, 0), (2nd half-diamonds, 17, --), (2nd isodynamic-Dao, 0, 0), (4th isodynamic-Dao, 0, 0), (2nd Lemoine-Dao, 0, 0), (Lucas(--) homothetic, 0, --), (medial, 5, --)

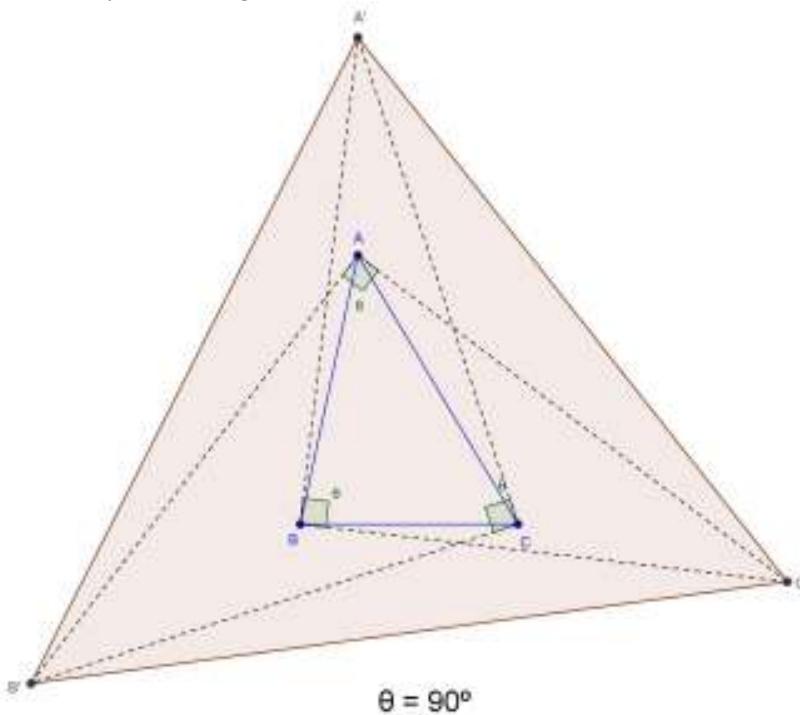
- Directly similar triangles and centers of similitude:**

(2nd Fermat-Dao, 0), (6th Fermat-Dao, 0), (10th Fermat-Dao, 0), (14th Fermat-Dao, 0), (inner-Le Viet An, 0)

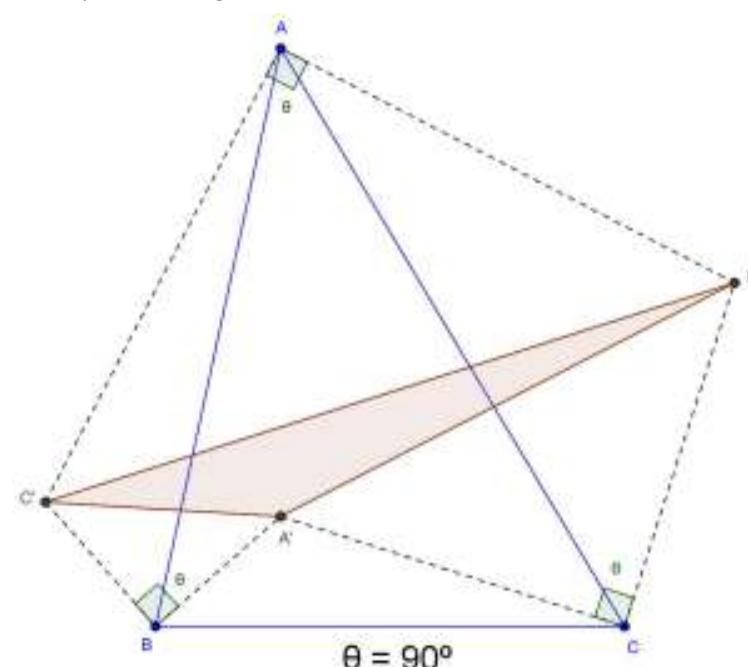
- Inversely similar triangles and centers of similitude:**

(circumnormal, 0), (circumtangential, 0), (1st Fermat-Dao, 0), (3rd Fermat-Dao, 22846), (5th Fermat-Dao, 0), (7th Fermat-Dao, 0), (9th Fermat-Dao, 0), (11th Fermat-Dao, 0), (13th Fermat-Dao, 0), (15th Fermat-Dao, 0), (1st half-diamonds-central, 2), (1st isodynamic-Dao, 0), (3rd isodynamic-Dao, 0), (1st Lemoine-Dao, 0), (outer-Le Viet An, 0), (1st Morley-midpoint, 0), (2nd Morley-midpoint, 0), (3rd Morley-midpoint, 0), (1st Morley, 0), (2nd Morley, 0), (3rd Morley, 0), (outer-Napoleon, 2), (Roussel, 0), (Stammler, 0)

1st half-squares triangle A'B'C'



2nd half-squares triangle A'B'C'

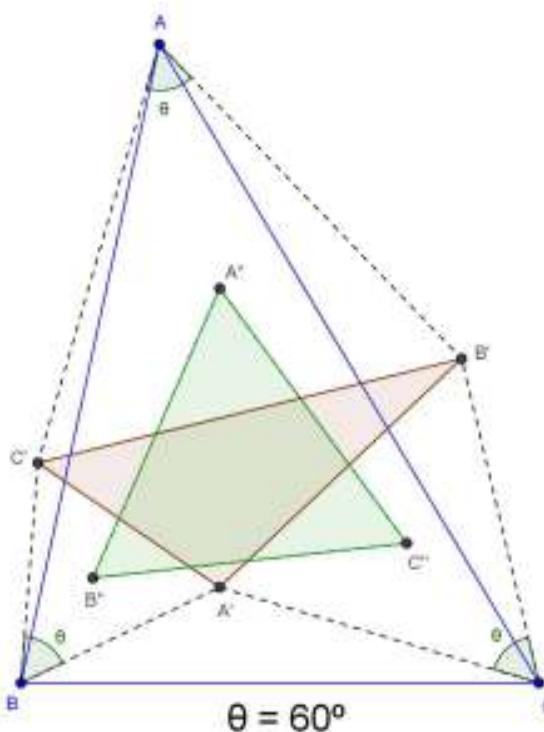


In perspective triangles, an asterisk * means that triangles are directly homothetic, *- means inversely homothetic, \$ means directly similar and \$- inversely similar.

Center 0 means a not calculated center

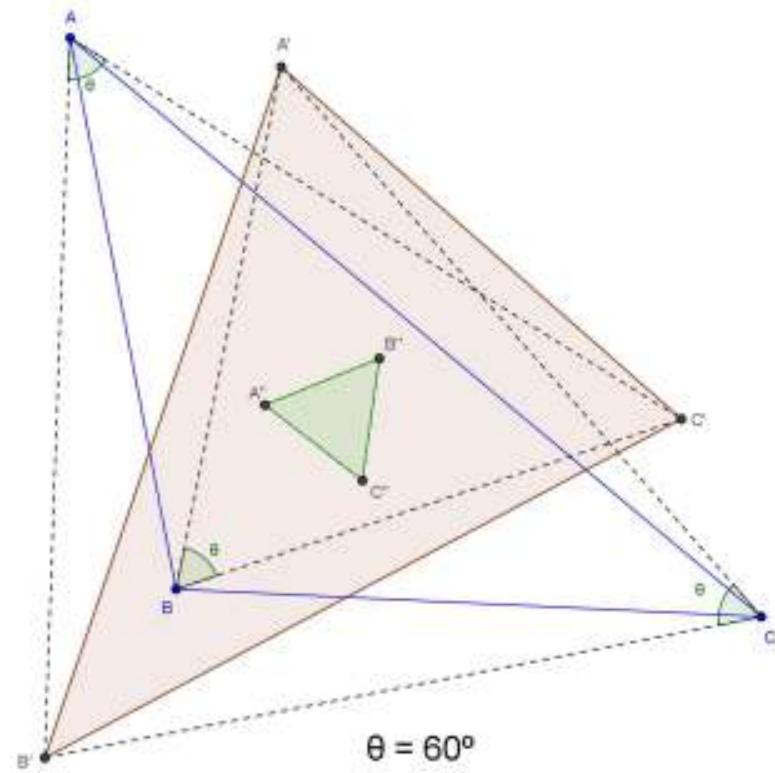
1st half-diamonds triangle A'B'C'

1st half-diamonds-central equilateral triangle A''B''C'' (A''=center-of-AB'C')



2nd half-diamonds triangle A'B'C'

2nd half-diamonds-central equilateral triangle A''B''C'' (A''=center-of-AB'C')



In perspective triangles, an asterisk * means that triangles are directly homothetic, *- means inversely homothetic, \$ means directly similar and \$- inversely similar.

Center 0 means a not calculated center