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There are two symmetric families of four-body co-circular central configurations, namely the kite and isosceles trapezoid. Using mutual distances as coordinates, we prove that if the four-body central configuration is an isosceles trapezoid, then the diagonals of the isosceles trapezoid cannot be perpendicular to each other. Furthermore, we show that for any four-body co-circular central configuration, the diagonals of the quadrilateral cannot be perpendicular except that the configuration is a kite. For any convex non-collinear central configuration of the planar Newtonian 4-body problem with adjacent equal masses $m_1 = m_2 \neq m_3 = m_4$, with equal lengths for the two diagonals, we prove it must possess a symmetry and must be an isosceles trapezoid; furthermore, which is also an isosceles trapezoid when the length between m_1 and m_4 equals the length between m_2 and m_3 . (Received September 24, 2017)