

**ZMATH 2014f.00629**

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**Ellipses of constant eccentricity.**

Int. J. Math. Educ. Sci. Technol. 45, No. 6, 938-946 (2014).

Summary: A square of side length  $2a$ ,  $a > 0$  is selected in the Euclidean plane. For each  $a > 0$ , two types of hexagons are constructed using the selected square. They are labelled type-1 hexagon and type-2 hexagon. For each  $a > 0$ , there are two type-1 hexagons and two type-2 hexagons. In relation to the selected square, they appear to be horizontal and vertical. The VKS ellipses circumscribe type-1 hexagons and type-2 hexagons. The construction of these two types of hexagons and the determination of the Cartesian equations of the circumscribing VKS type-1 and VKS type-2 ellipses form the main themes for this paper. The eccentricities of these VKS type-1 ellipses and VKS type-2 ellipses are also discussed. The author hopes that the construction of the hexagons and the ellipses will be useful to students in high schools and colleges.

*Classification:* G40

*Keywords:* type-1 hexagons; type-2 hexagons; VKS type-1 ellipses; VKS type-2 ellipses

doi:10.1080/0020739X.2014.892162