

# On Caustics of Plane Curves

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April 13, 2005

In my presentation, I first plan to go over the terms that are used frequently in the paper *On Caustics of Plane Curves* by J.W. Bruce, P.J. Giblin, and C.G. Gibson from *The American Mathematical Monthly*, Vol. 88, No. 9 (Nov., 1981) . In this paper, the authors assume that we already know what many things mean, so I will give the definitions and clear examples. I will also clarify any proofs in the paper that the authors skip over as obvious. For example, I will show that the line from the point of contact with the curve is normal to the point of intersection on the orthotomic. I will also (hopefully) prove some of the results regarding the focus of conics, the negative pedal, the construction of a point on the caustic, and a parabola with the light source at infinity. In addition, I will go over a few examples of the caustics formed by different curves.