

# Calculus I

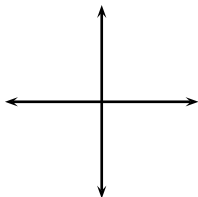
## Plotting curves defined by implicit equations

Todor Milev

2019

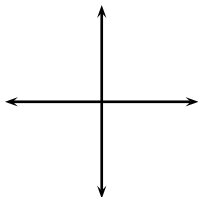
## (Elementary Computer algorithm for sketching graphs)

*Let  $H$ -continuous; is there simple algorithm to sketch  $H(x, y) = 0$ ?*



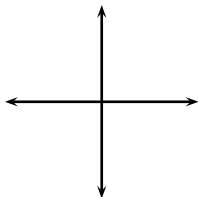
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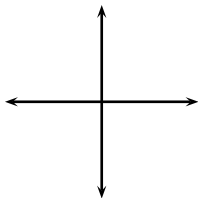


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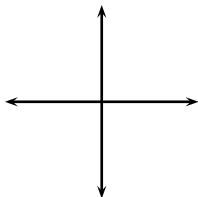
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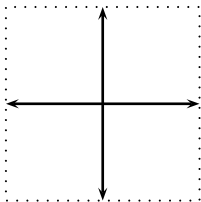
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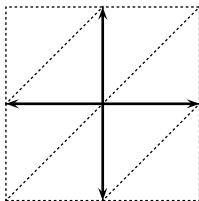
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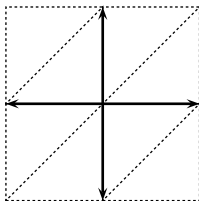
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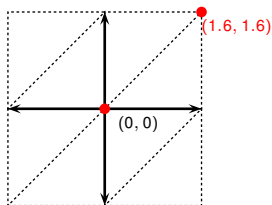
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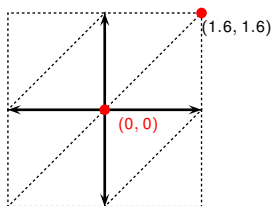
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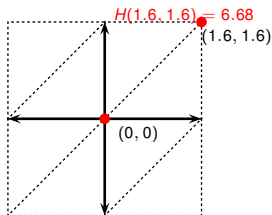
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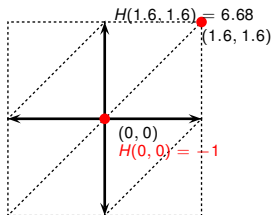
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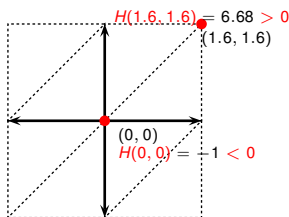
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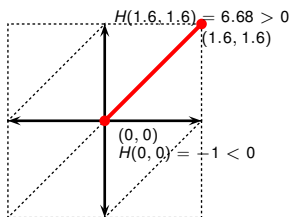
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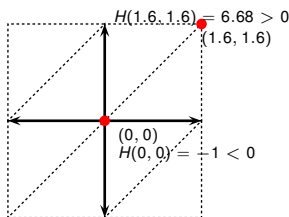
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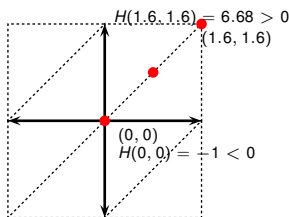
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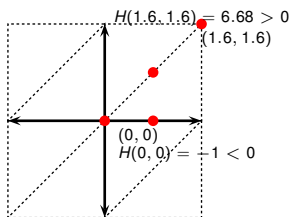
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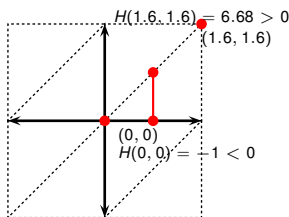
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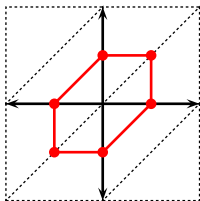
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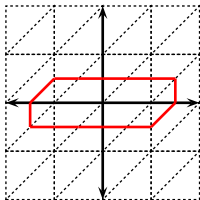
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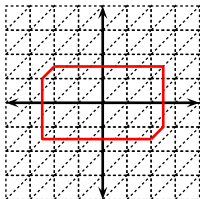
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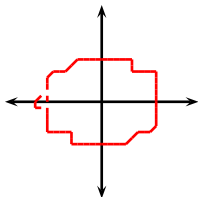
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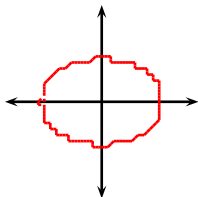
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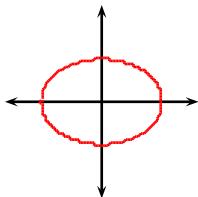
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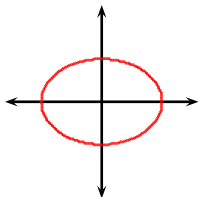
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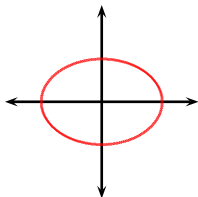
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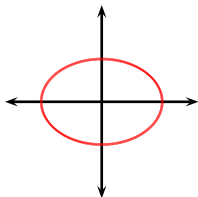
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## (Elementary Computer algorithm for sketching graphs)

Let  $H$ -continuous; is there simple algorithm to sketch  $H(x, y) = 0$ ? Yes.



We illustrate the algorithm for:

$$x^2 + 2y^2 = 1$$

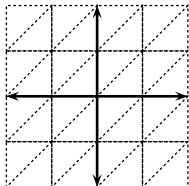
$$x^2 + 2y^2 - 1 = 0$$

$$\text{Set } H(x, y) = x^2 + 2y^2 - 1$$

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## (Elementary Computer algorithm for sketching graphs)

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Illustrate the algorithm for:

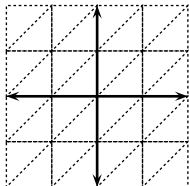
$$y^2(y^2 - 3) = x^2(x^2 - 5)$$

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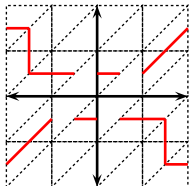
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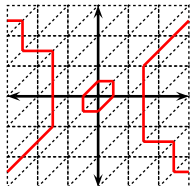
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Illustrate the algorithm for:

$$y^2(y^2 - 3) = x^2(x^2 - 5)$$

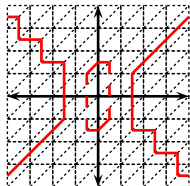
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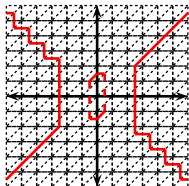
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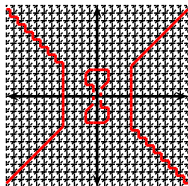
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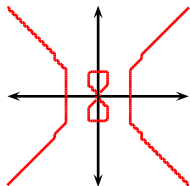
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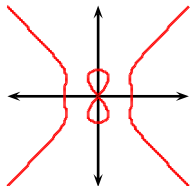
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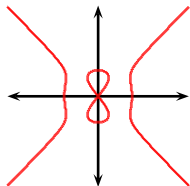
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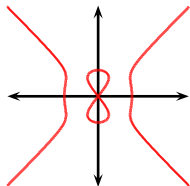
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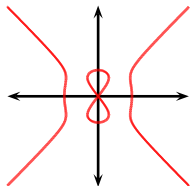
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