The **derivative** is the limit

$$\lim_{h \to 0} \frac{f(x+h) - f(x)}{h},$$

if this limit exists as a finite number.

The derivative has important applications in physics as a rate of change and as a linear approximation.

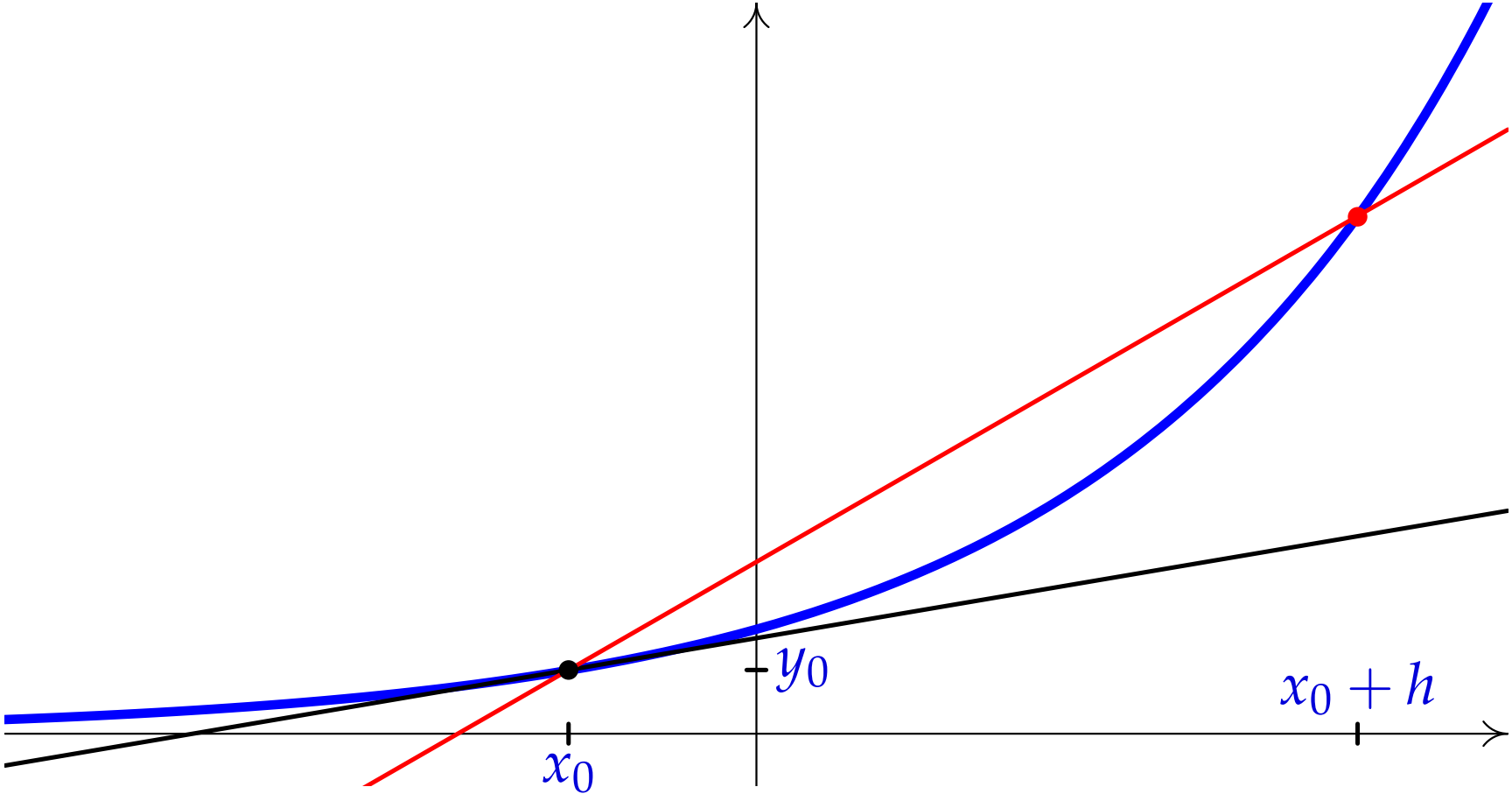
The derivative can be evaluated using appropriate formulas

Rank is a maximal number of linearly independent rows in a matrix.

Rank can be used to prove or disprove linear independence of vectors and it also appears in the Frobenius Theorem.

To find the rank of a matrix, you have to convert this matrix into row echelon form.

???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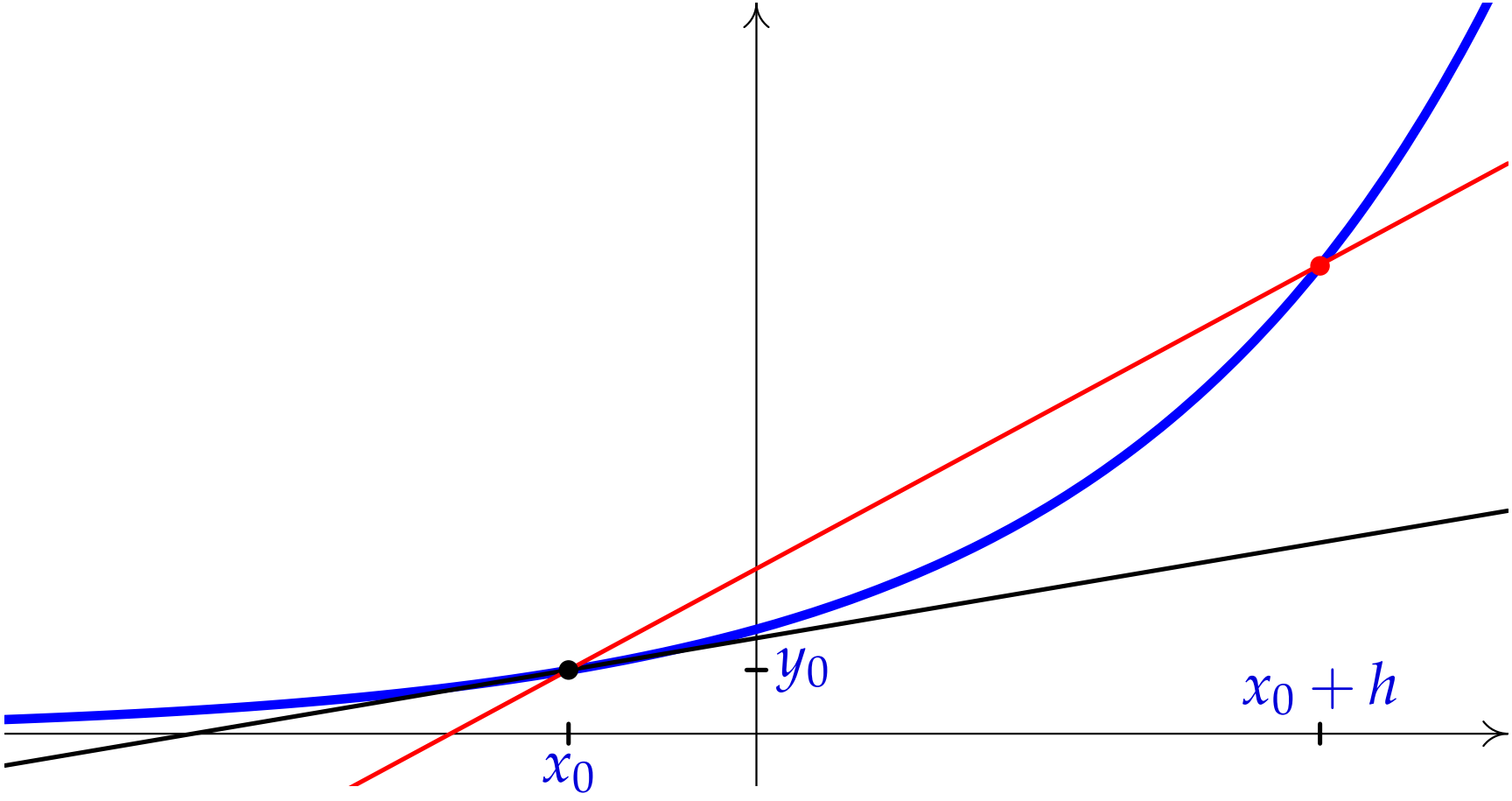
$x_0 + h$
x_0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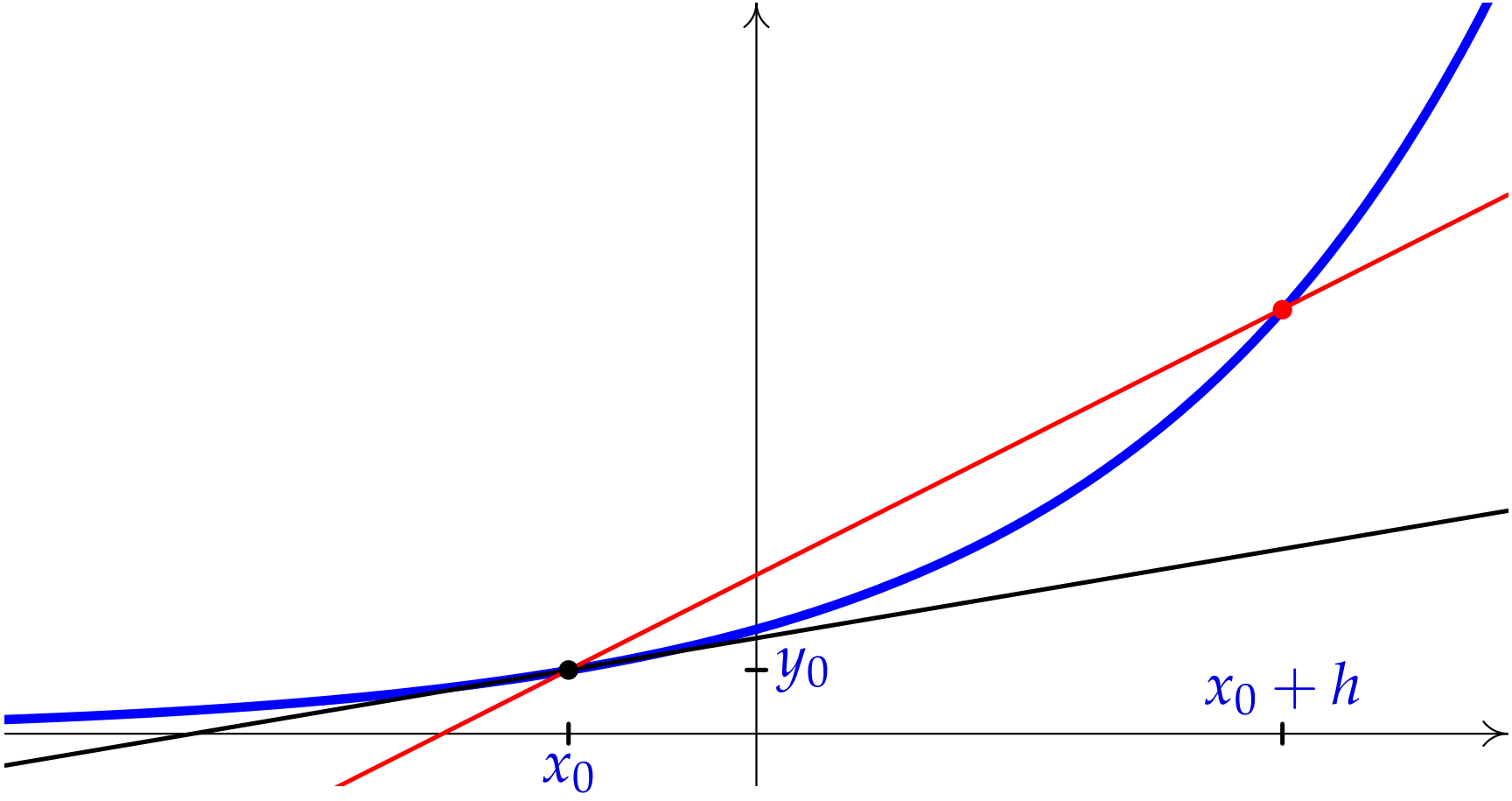
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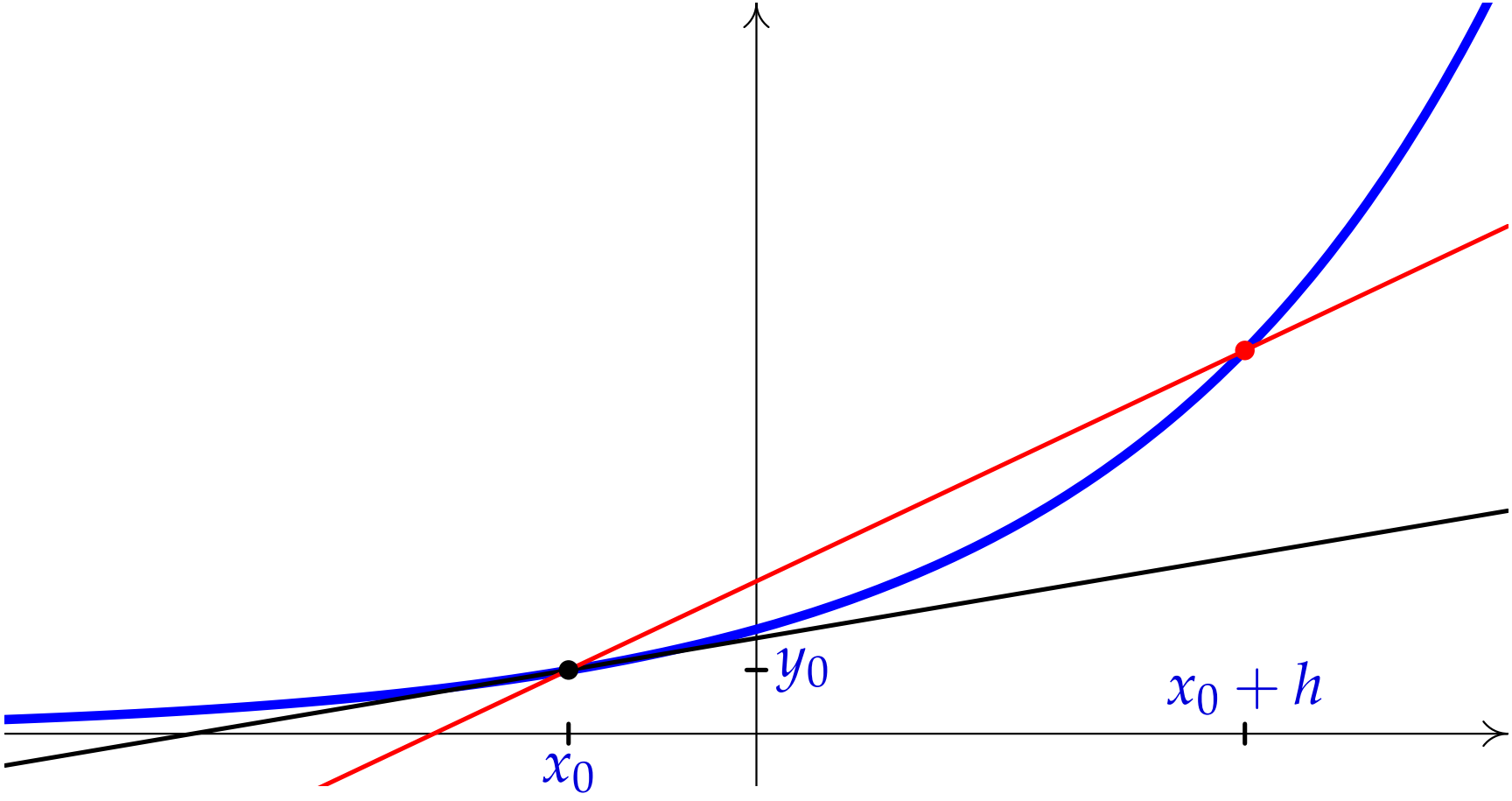
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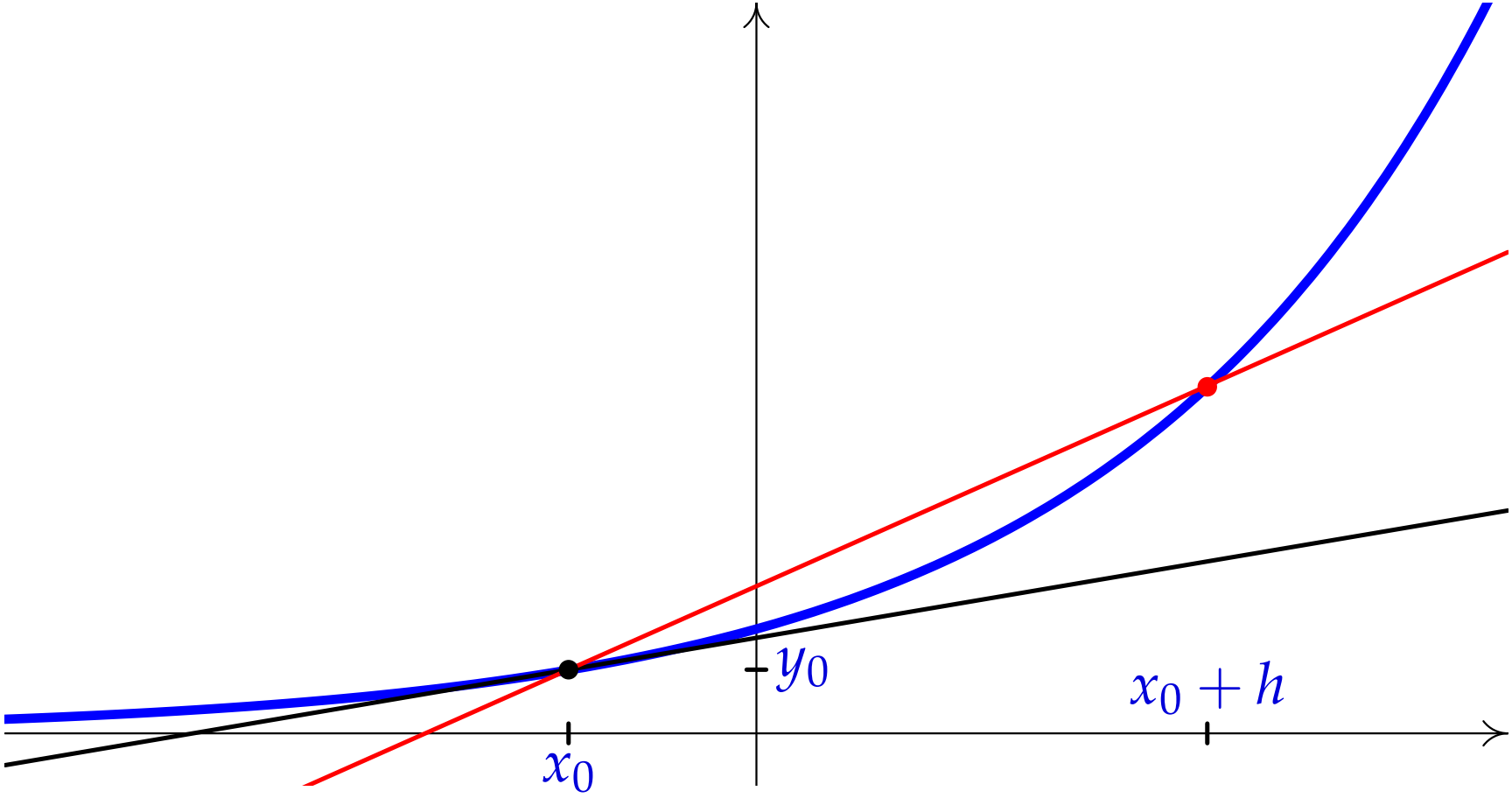
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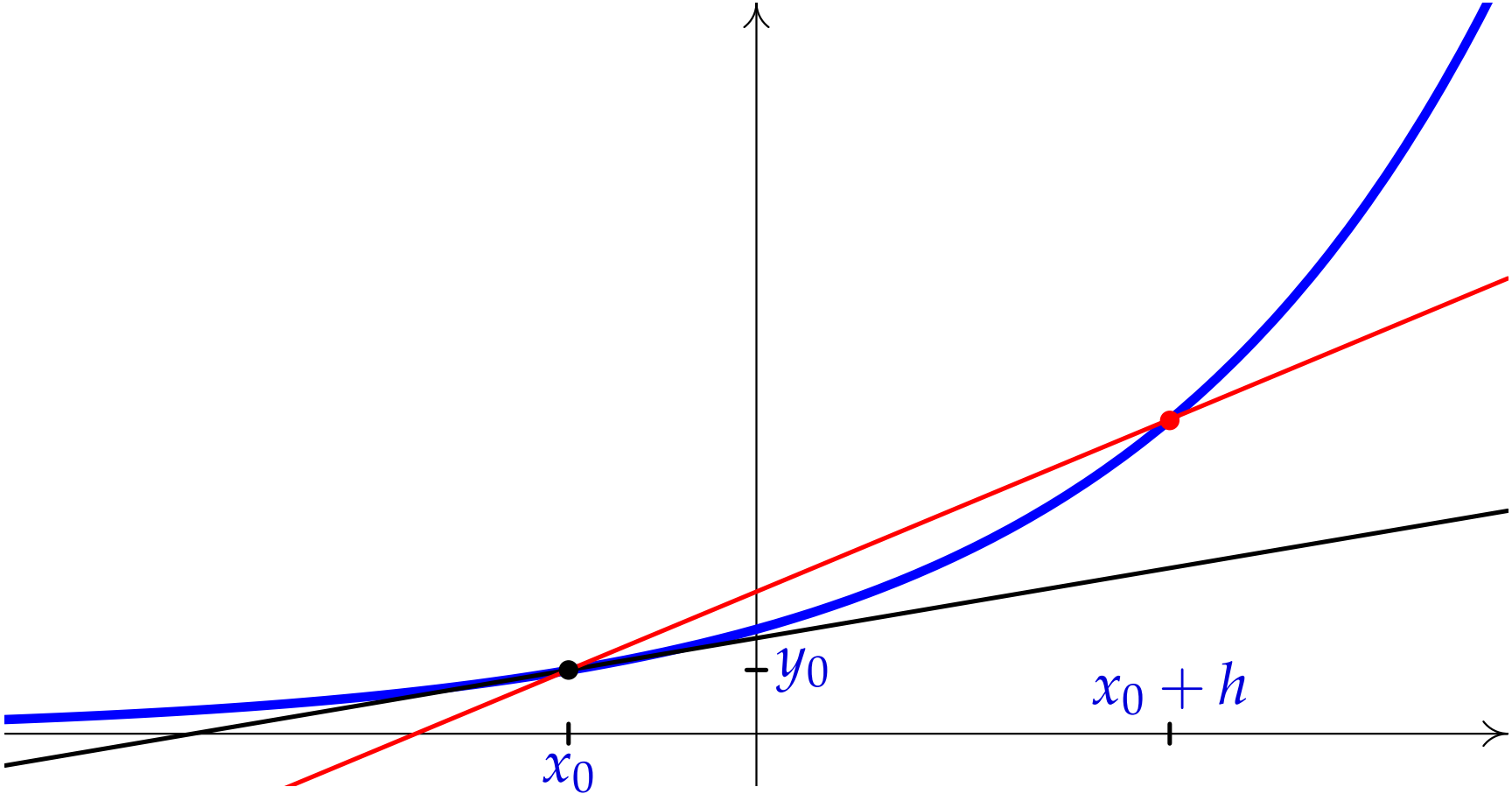
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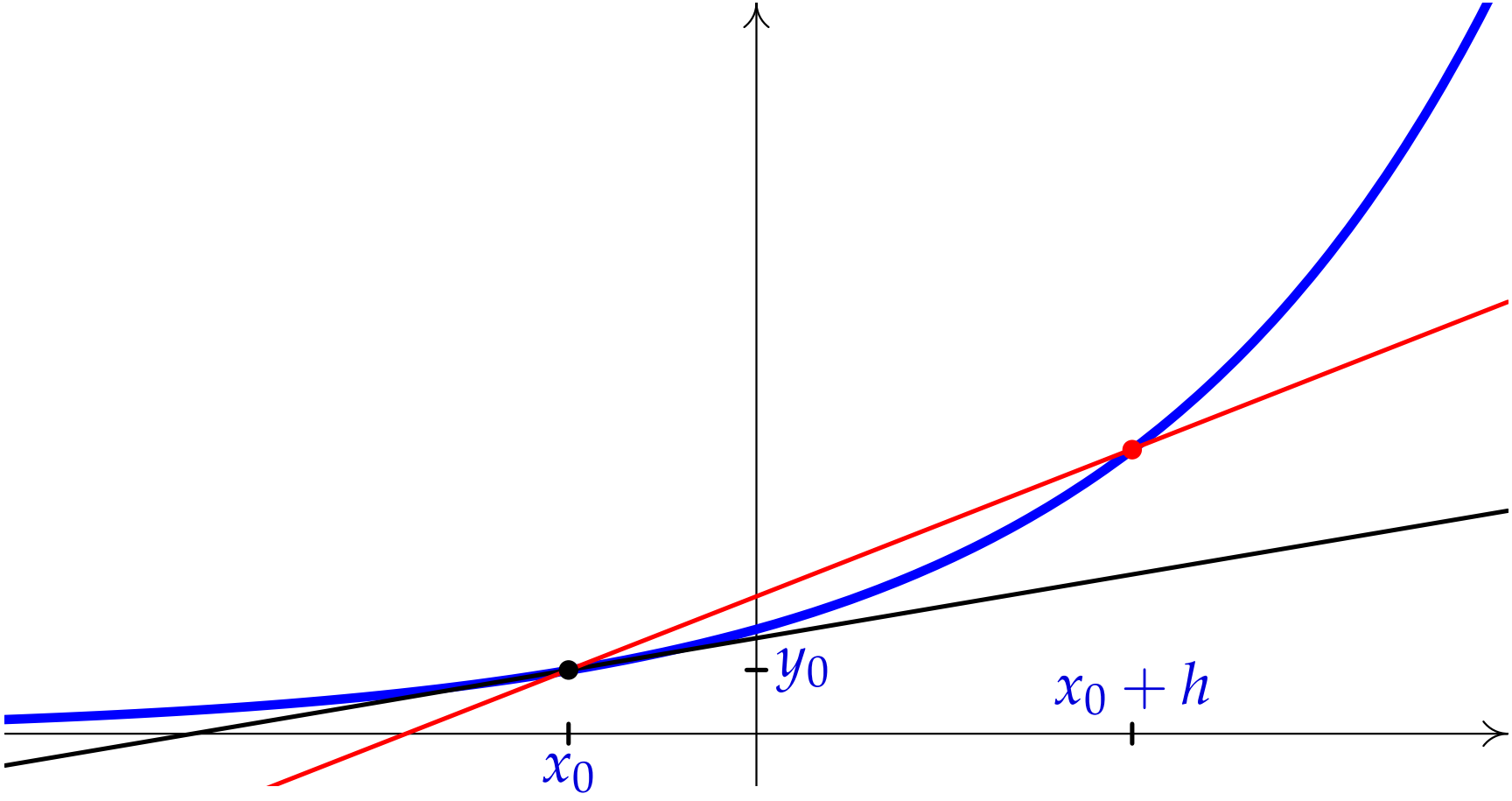
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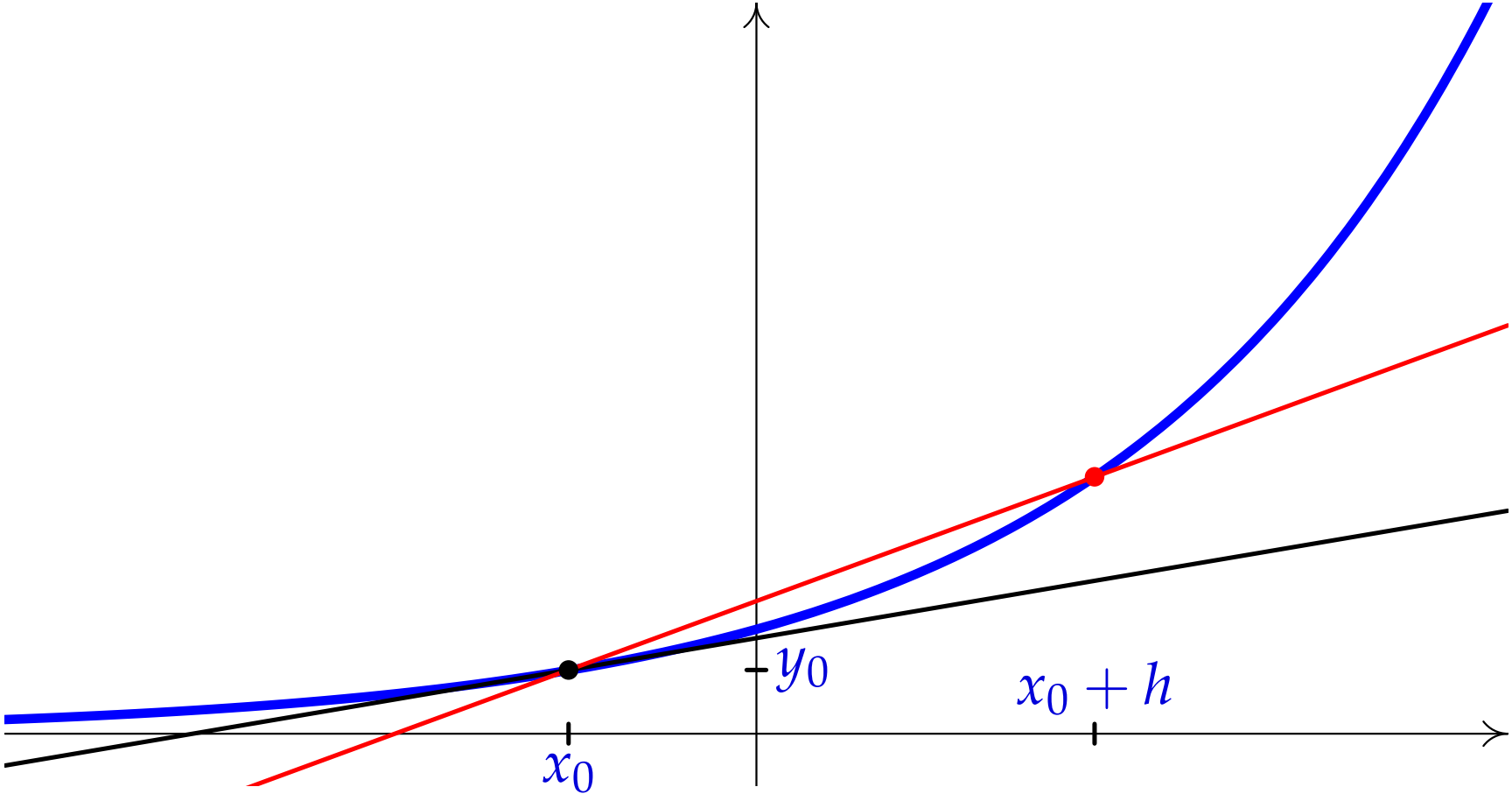
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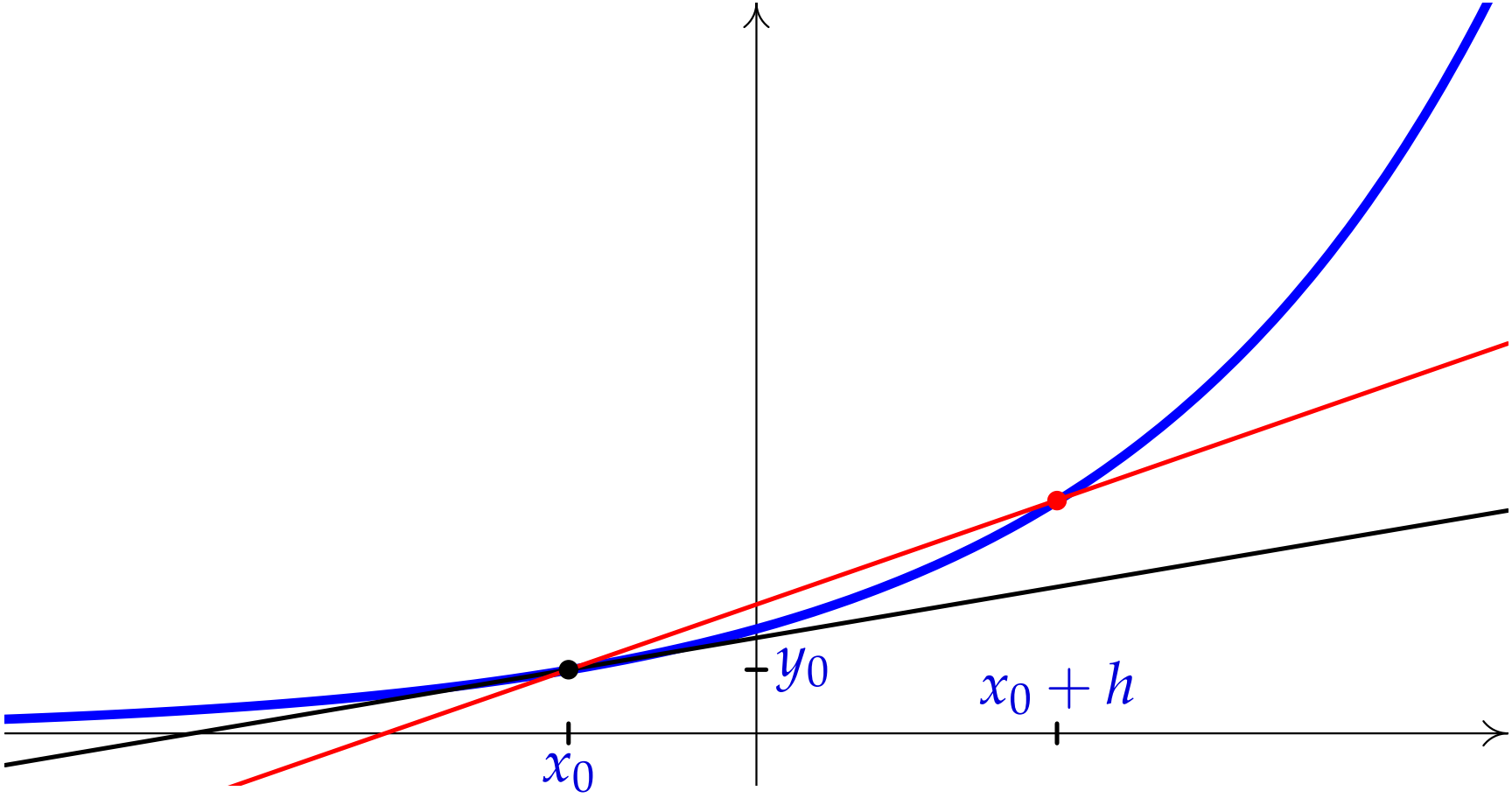
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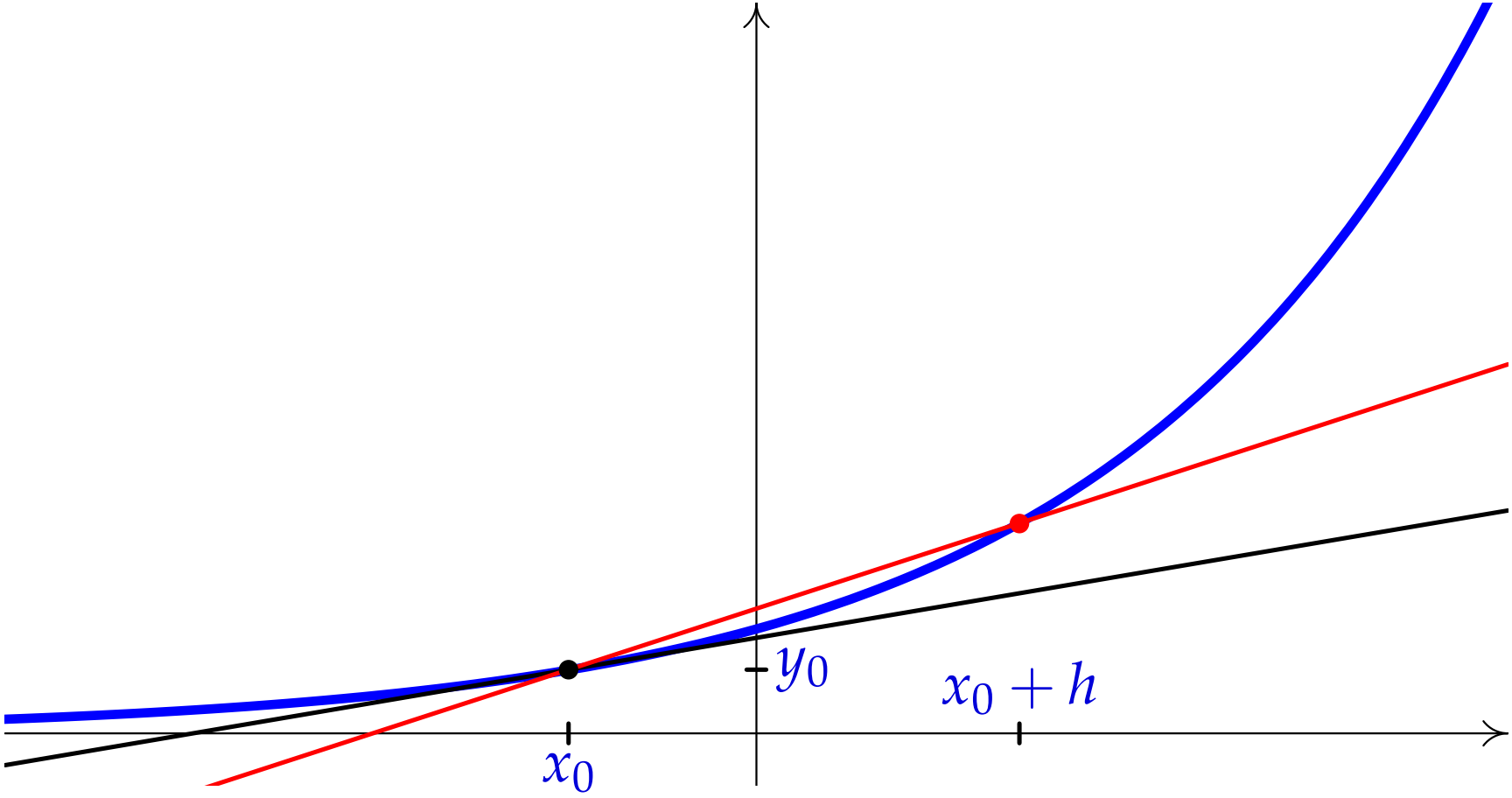
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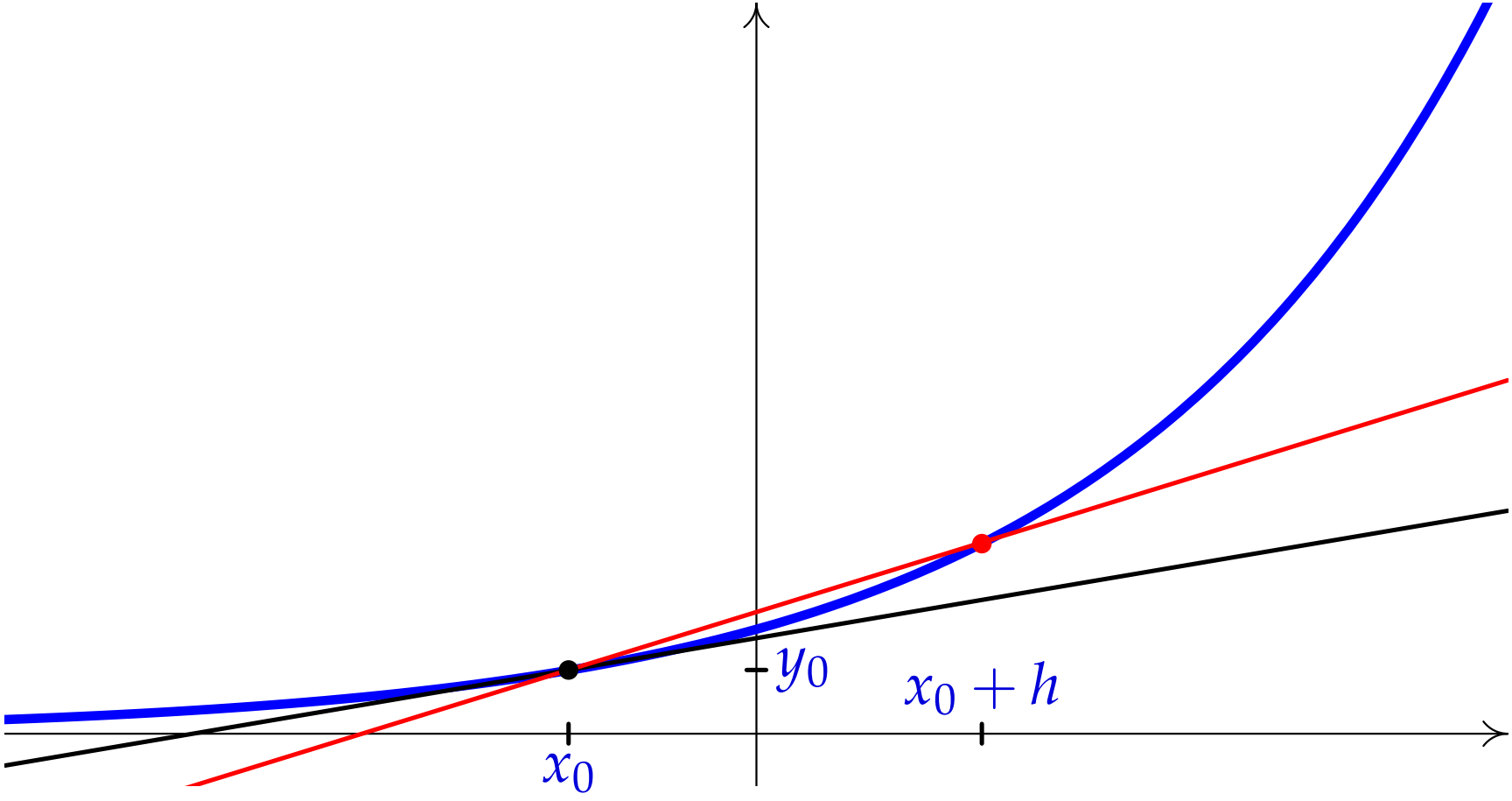
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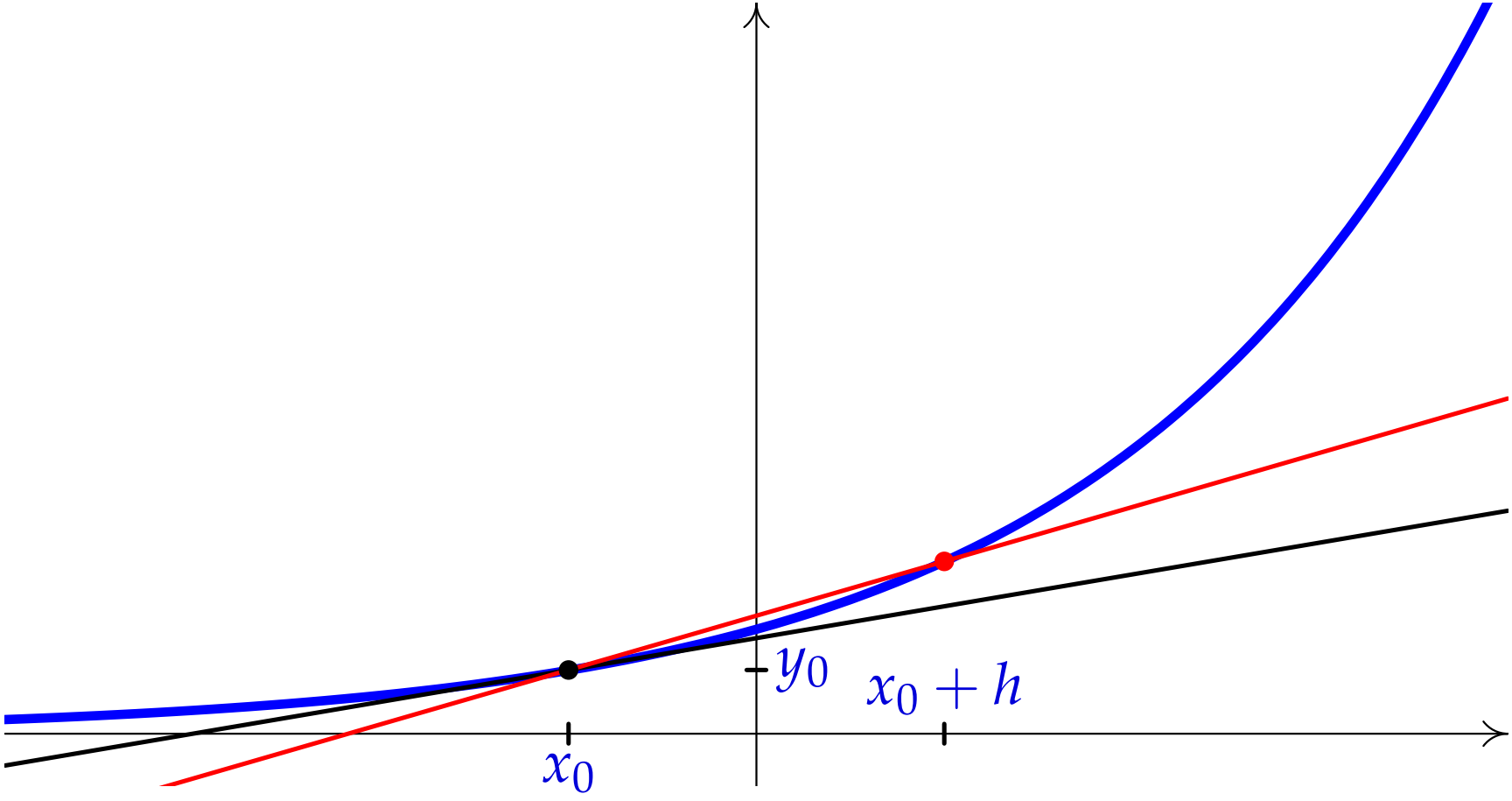
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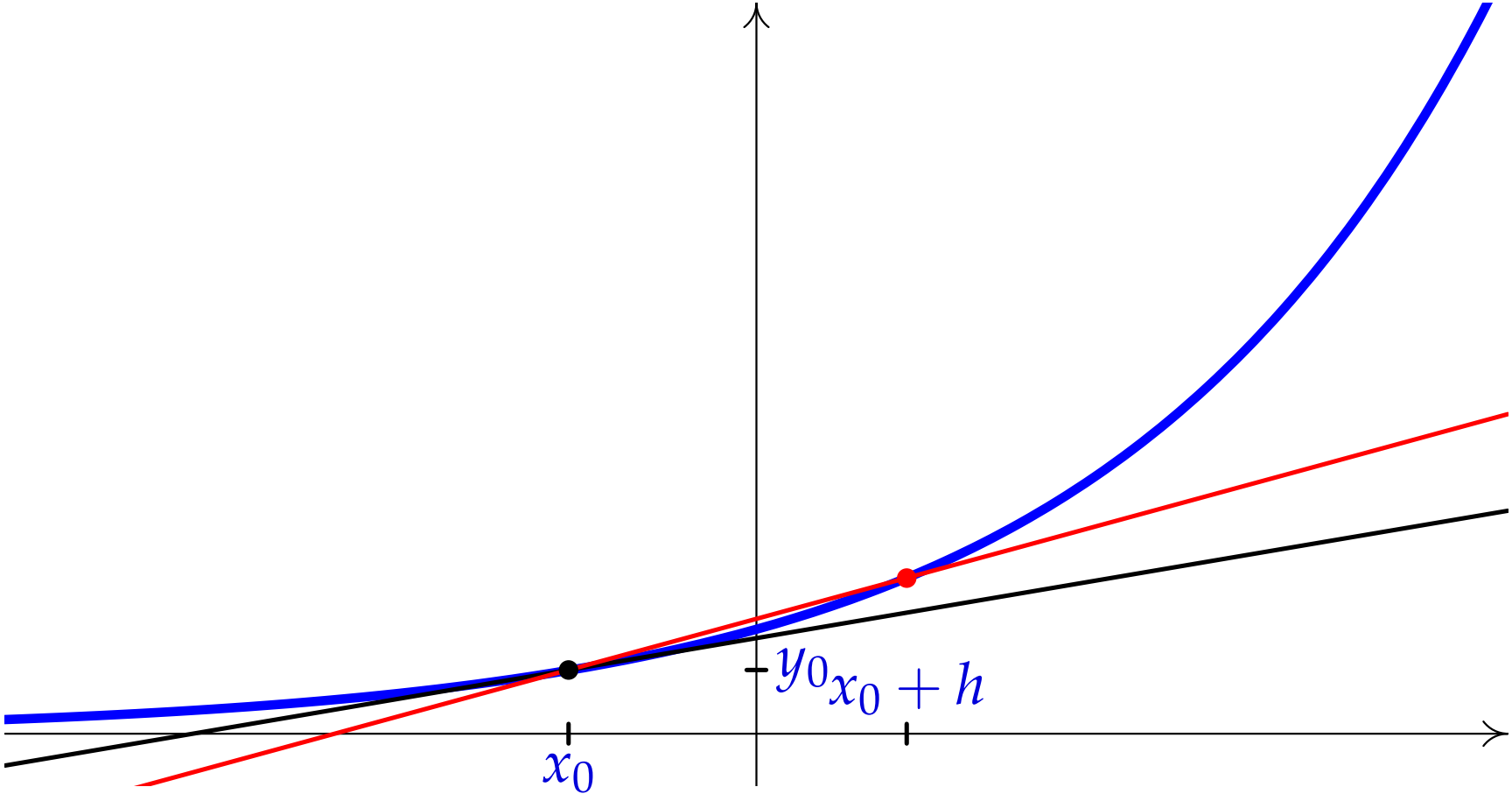
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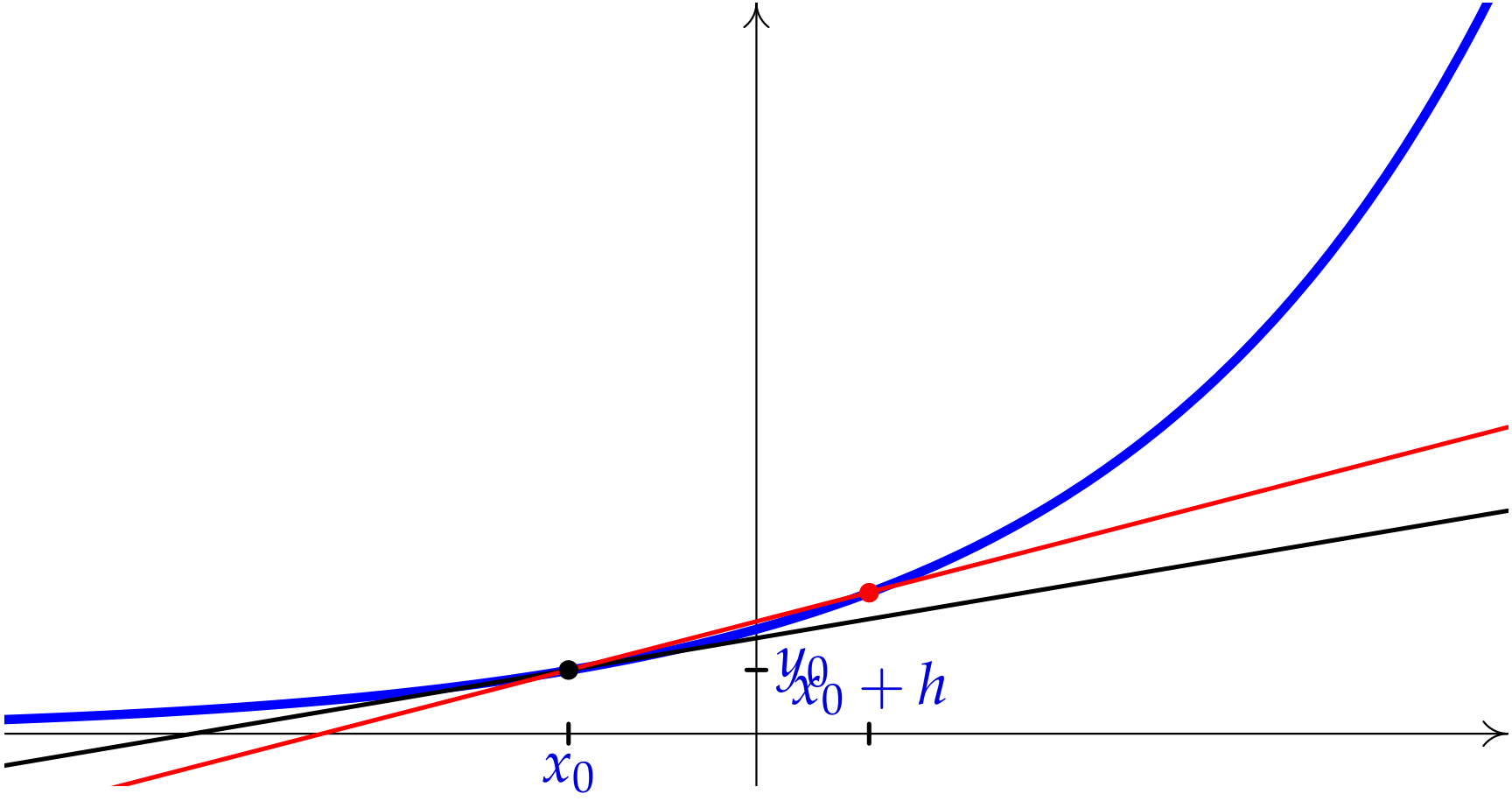
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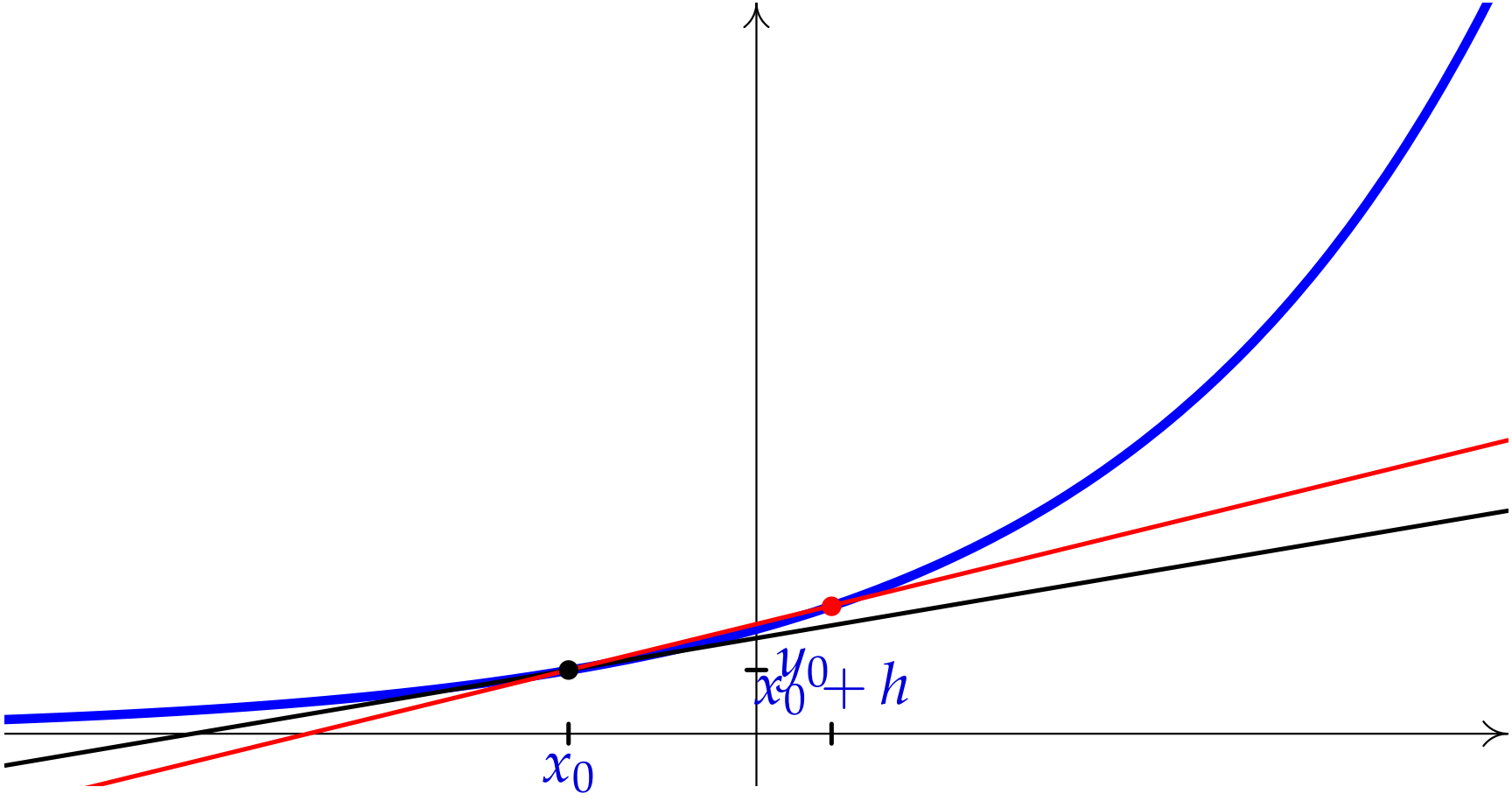
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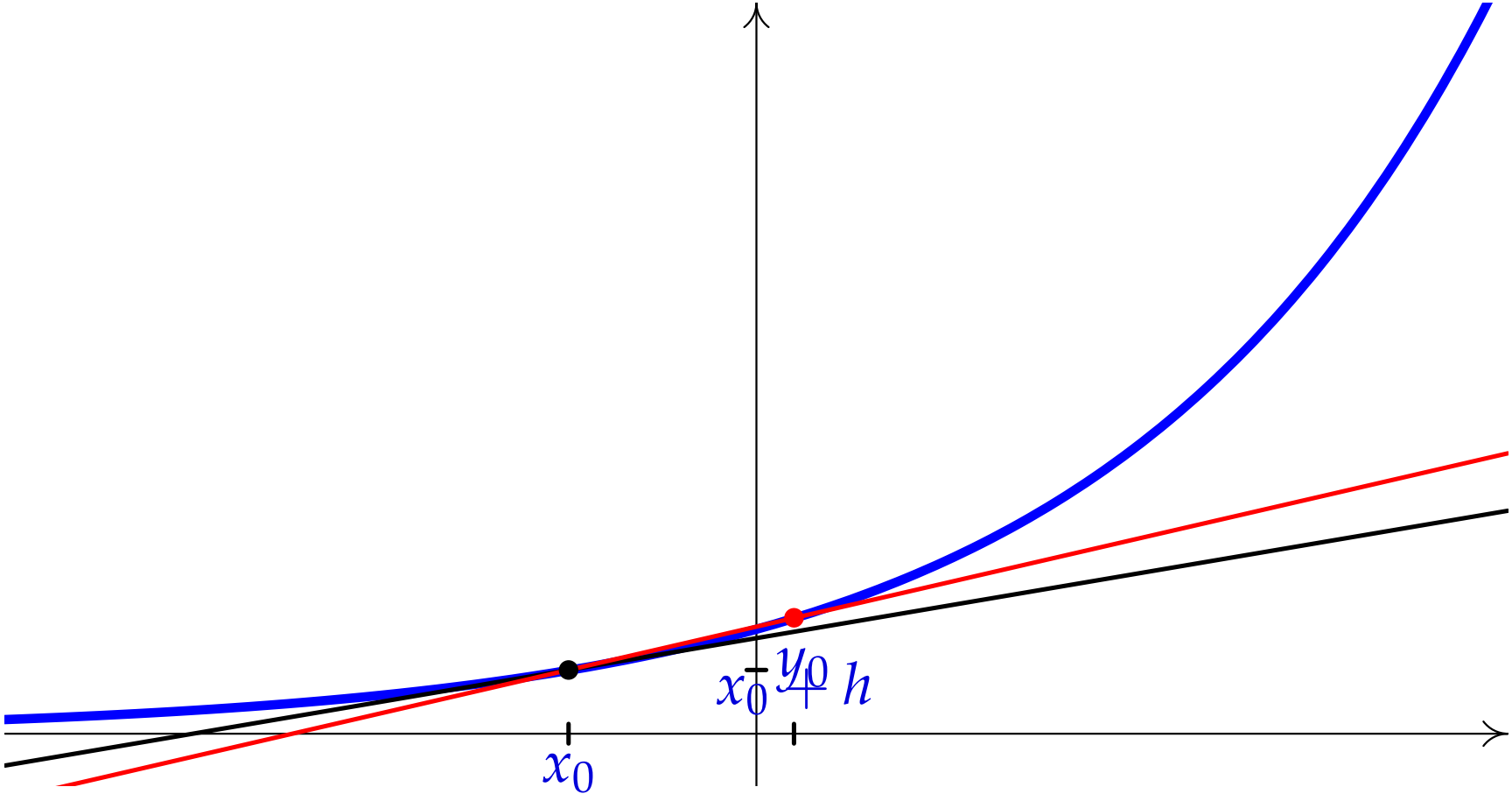
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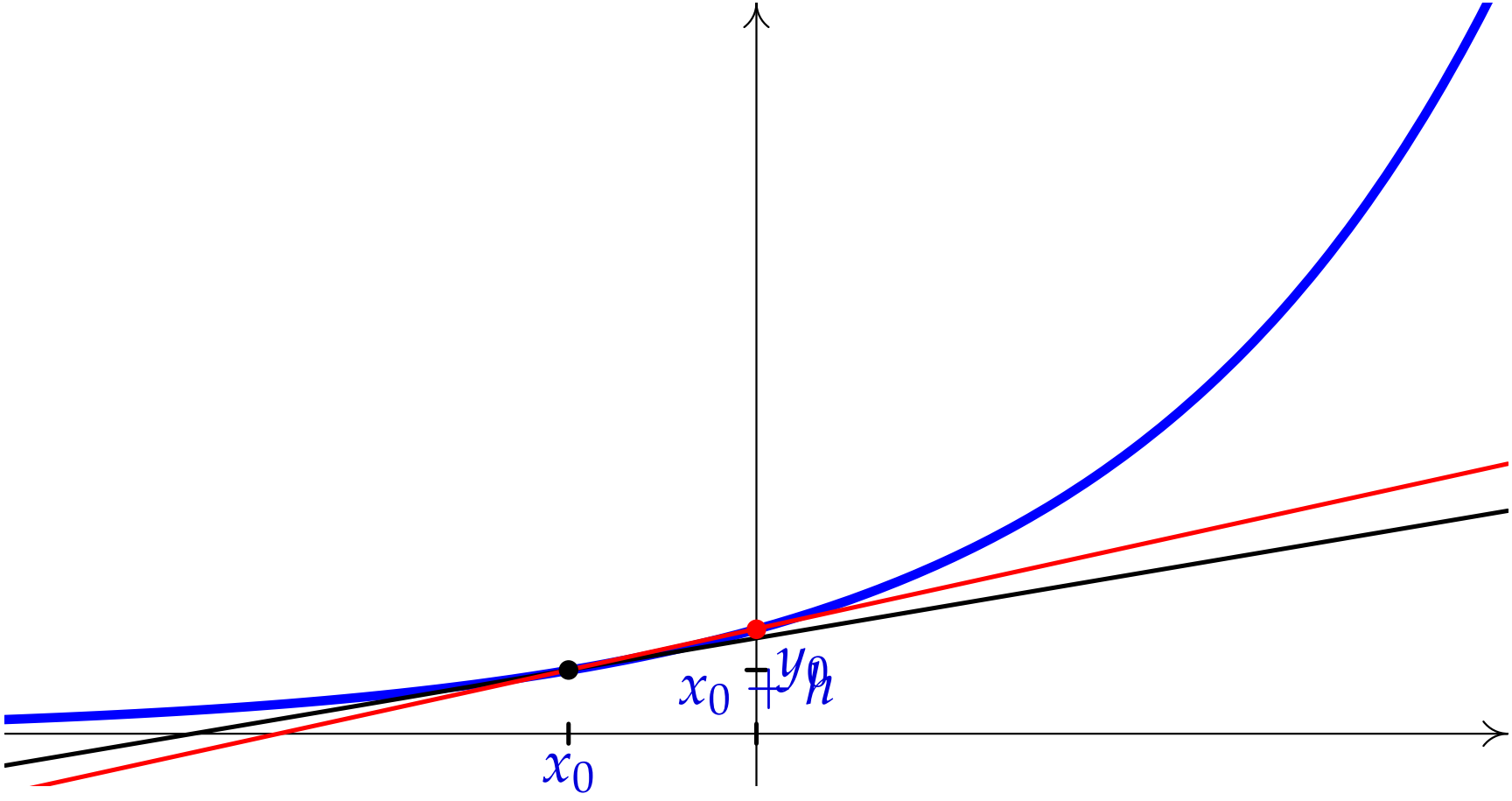
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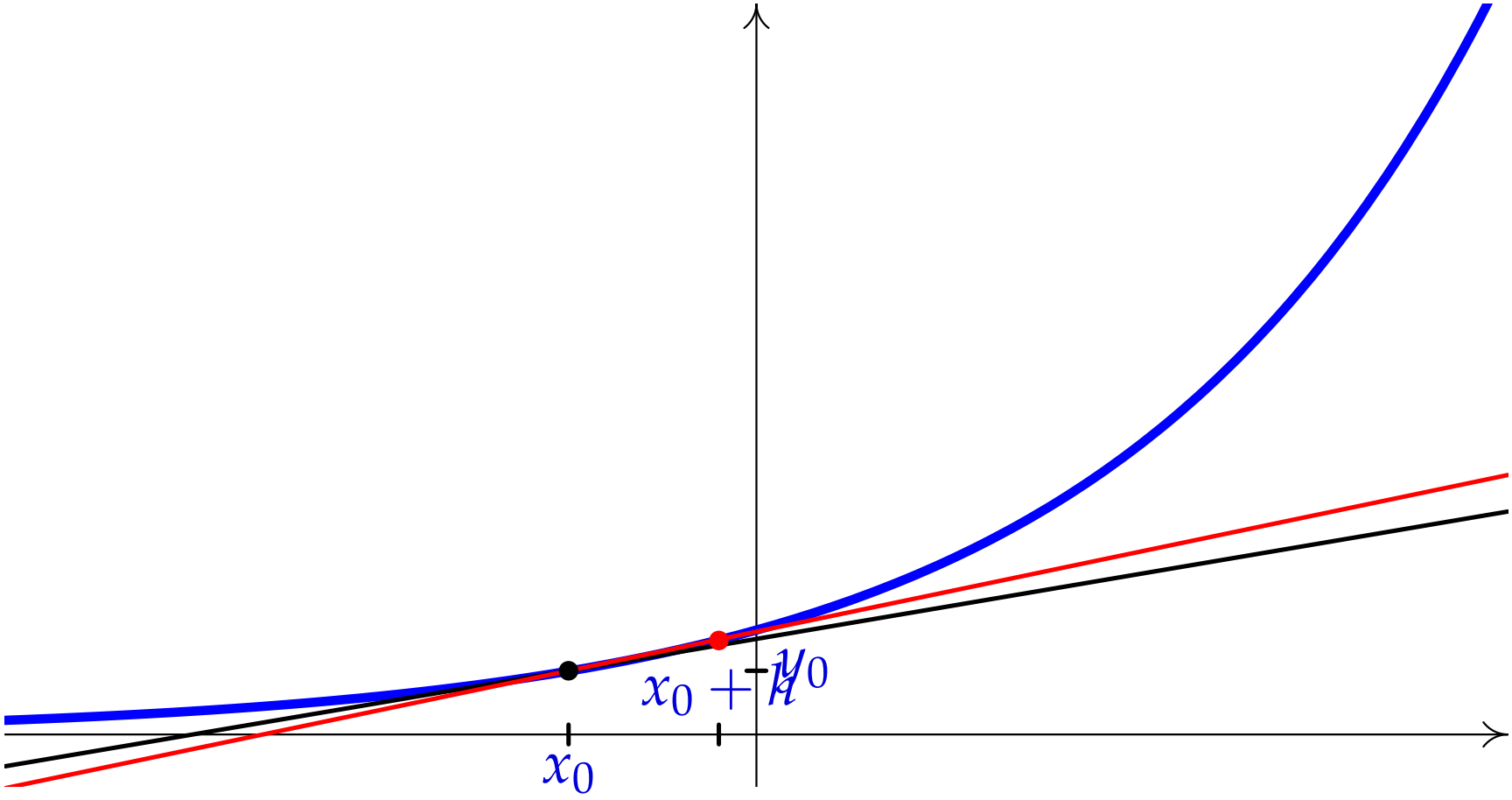
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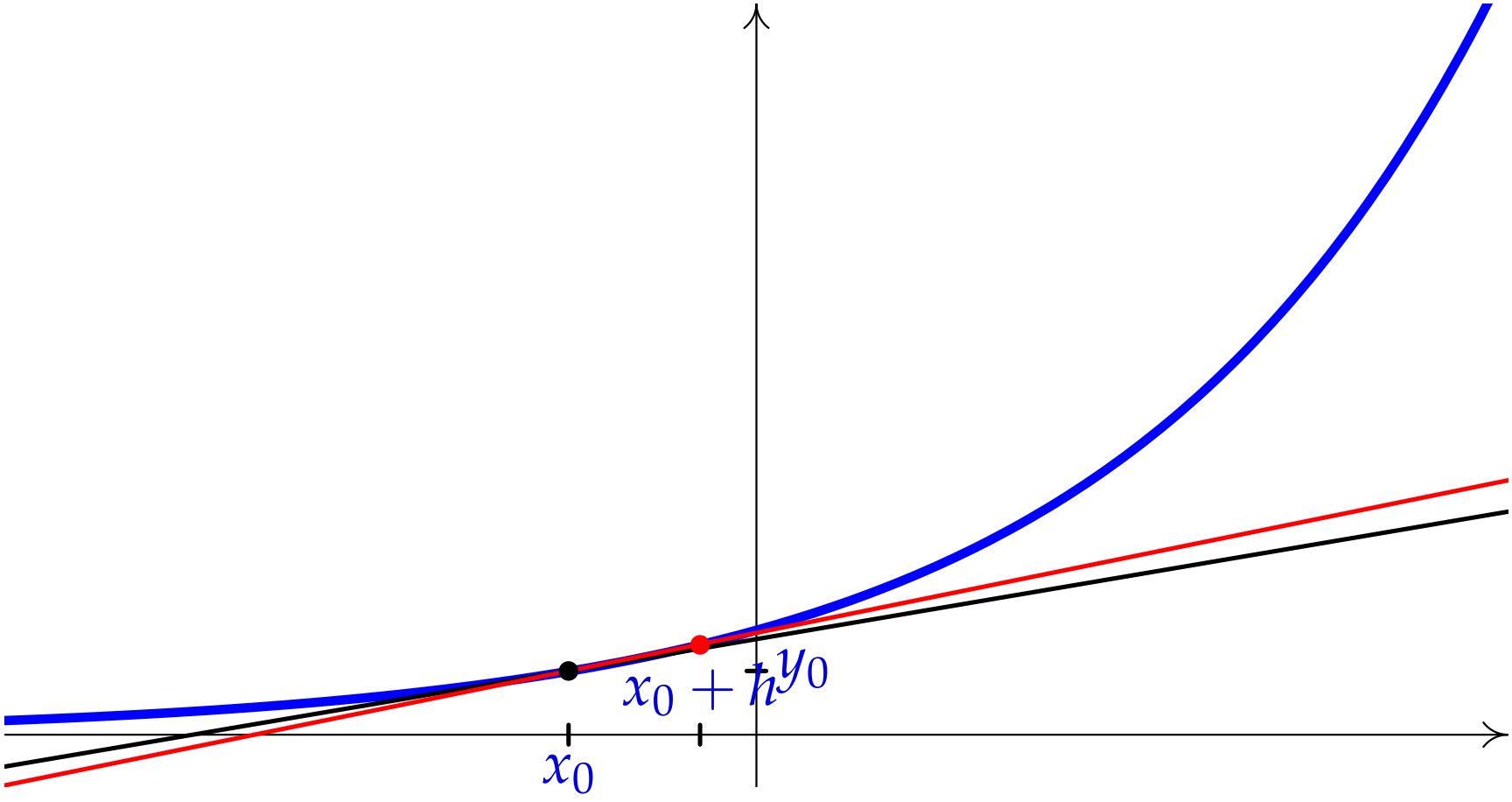
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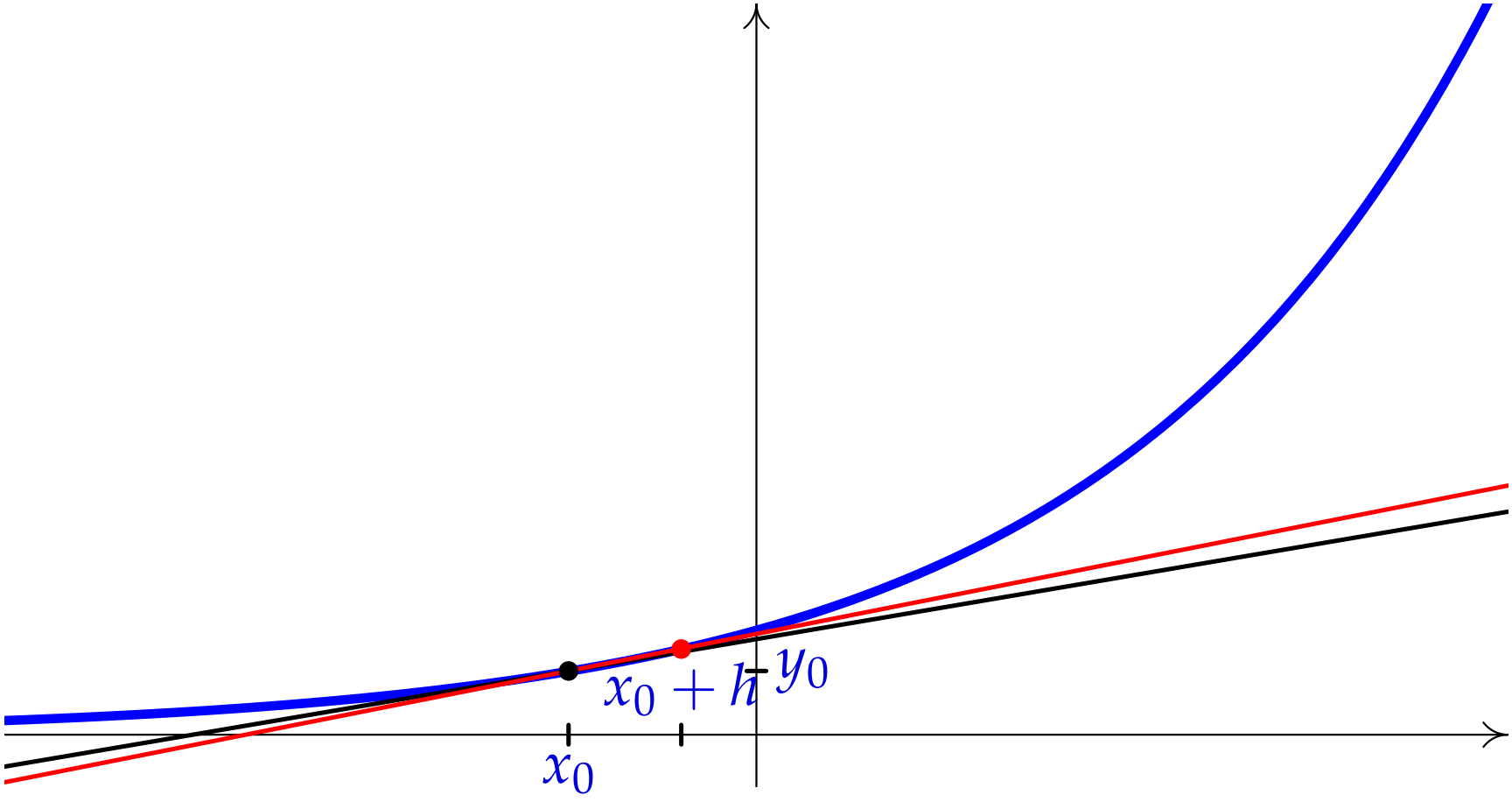
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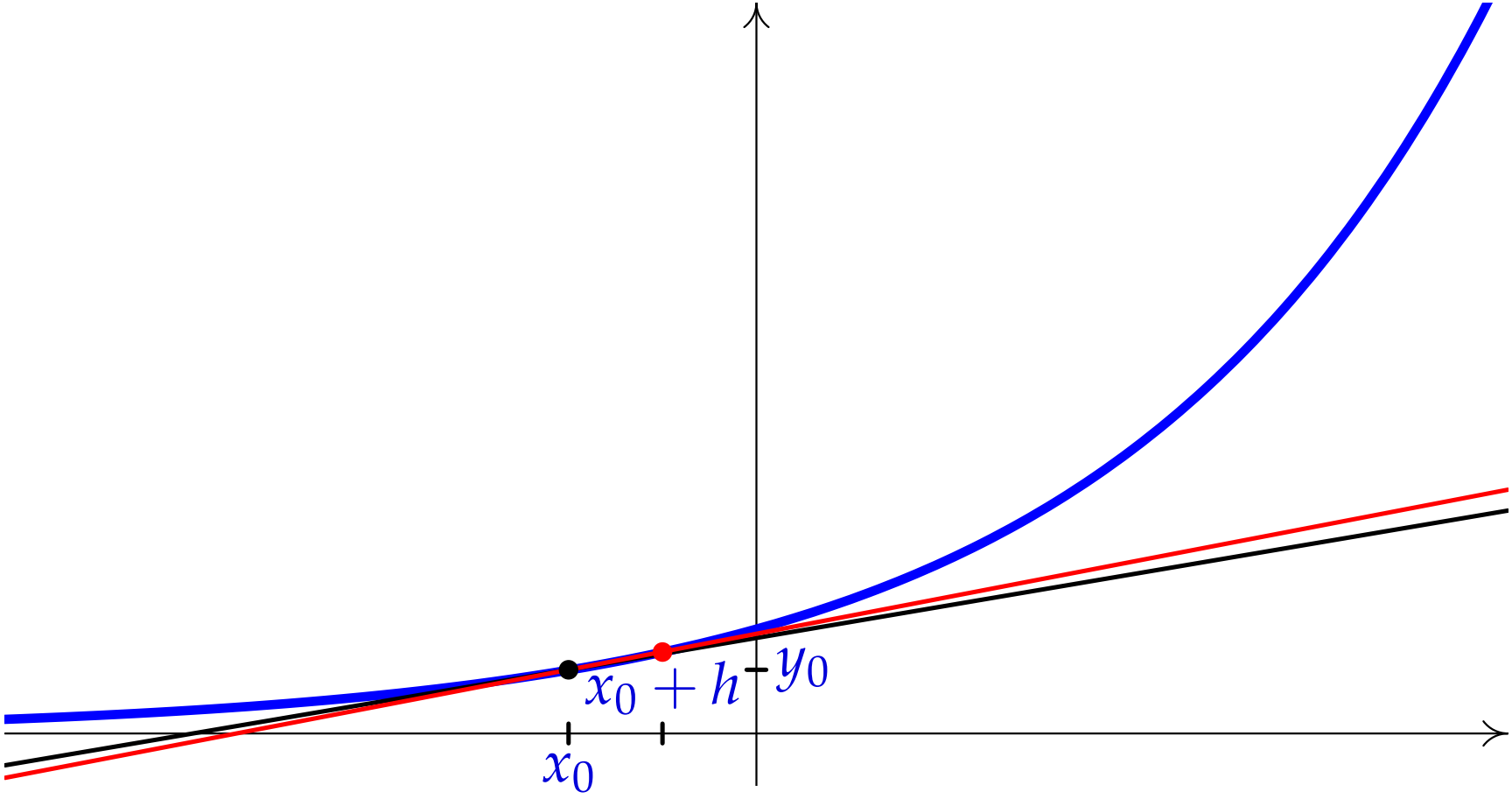
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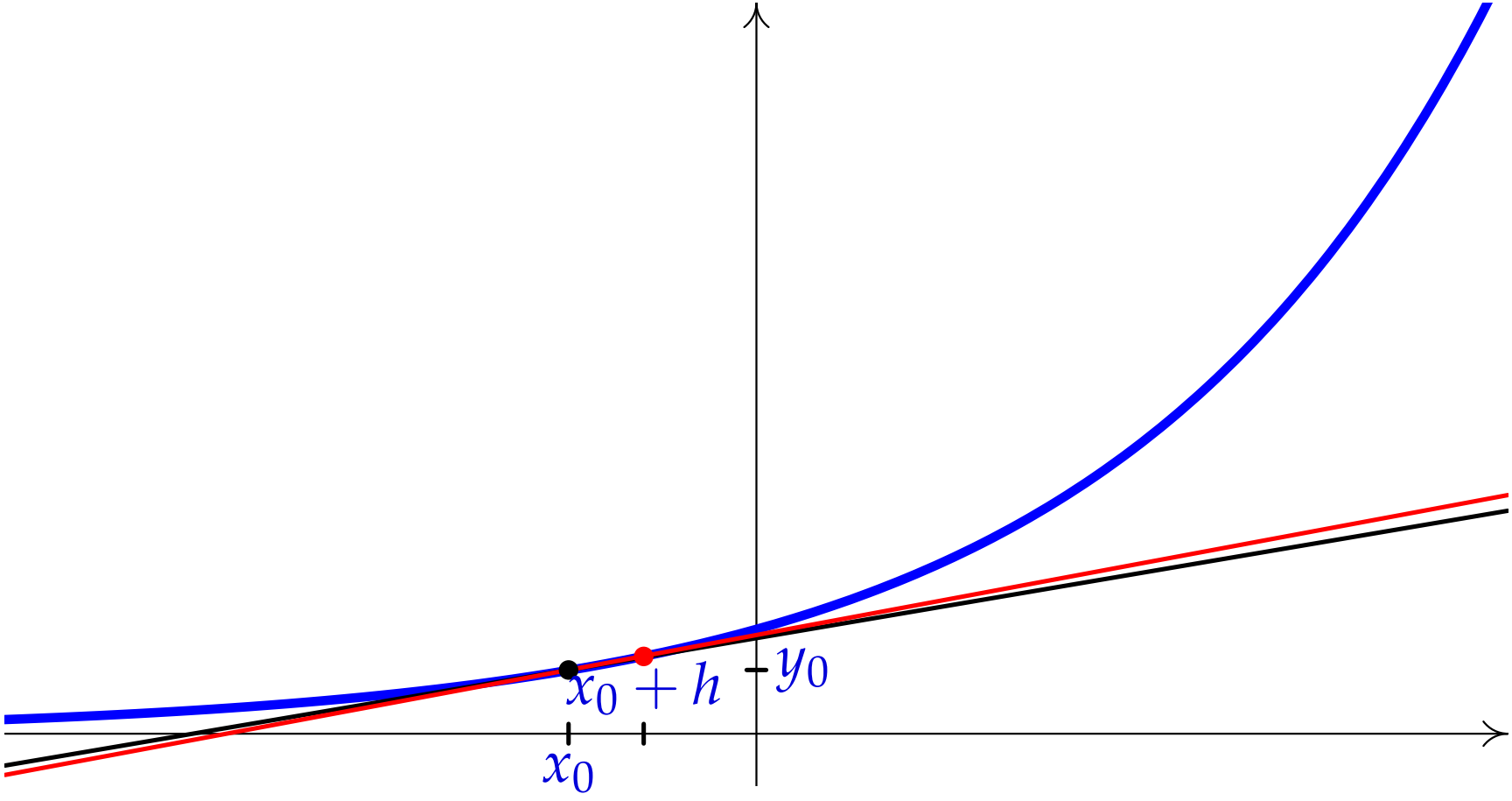
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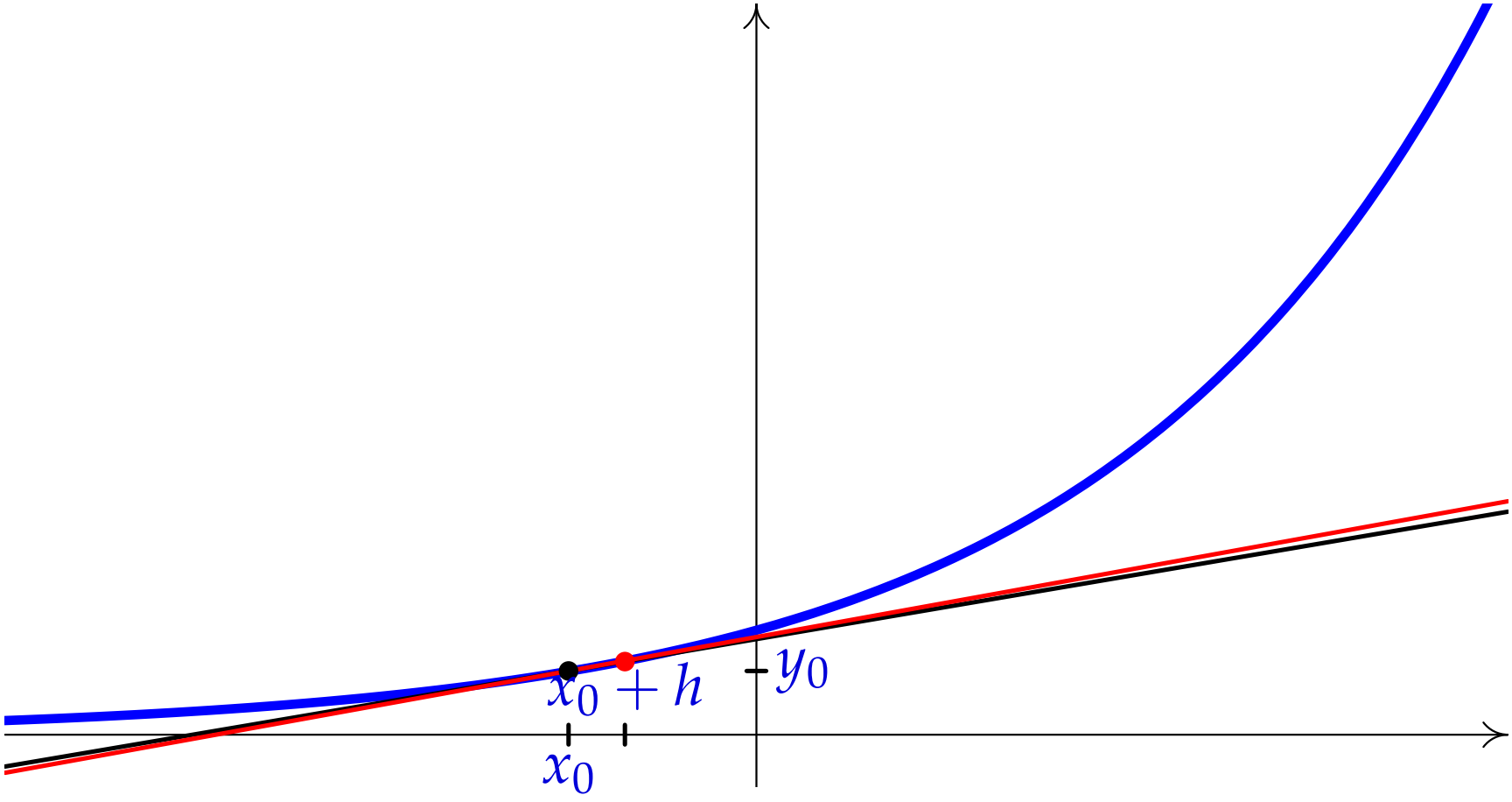
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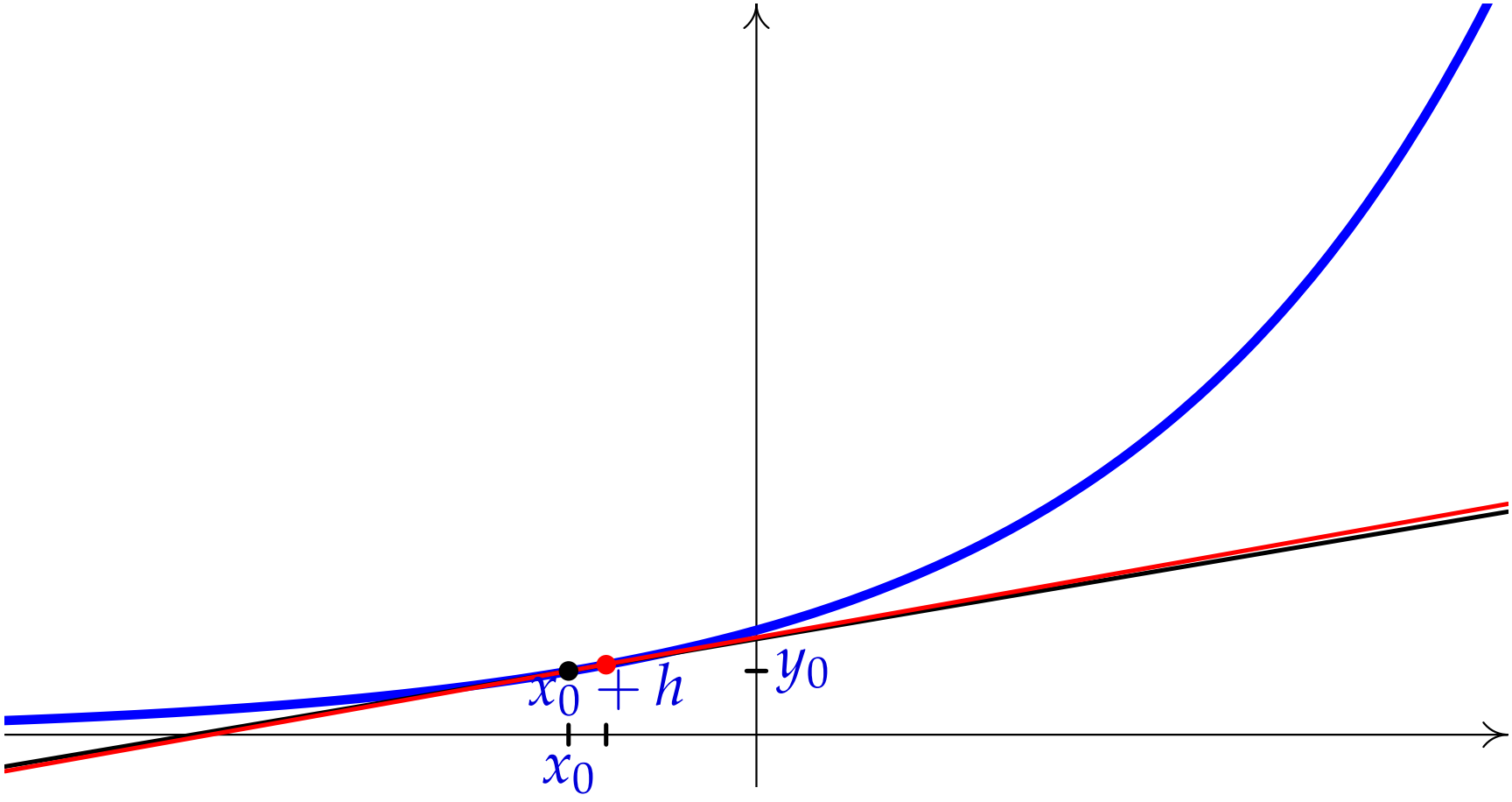
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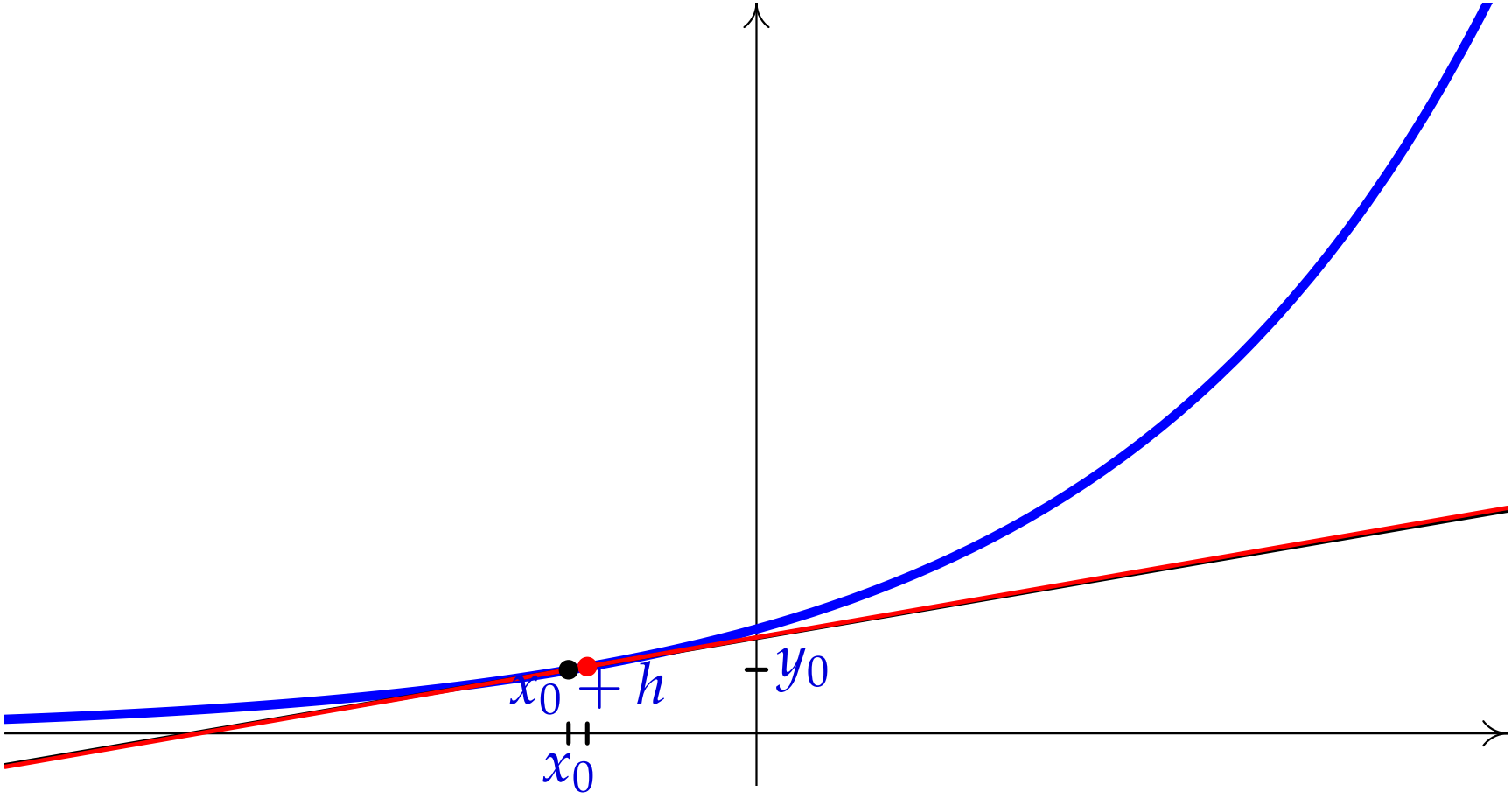
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