

$f(x, y) = 0$ 평행이동
(Translation of $f(x, y) = 0$)

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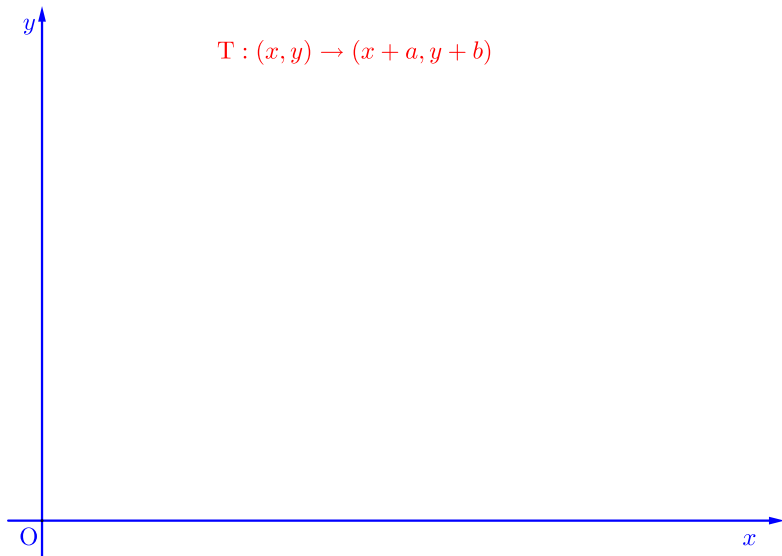
▶ Start

▶ End

Translation of $f(x, y) = 0$

▶ Start

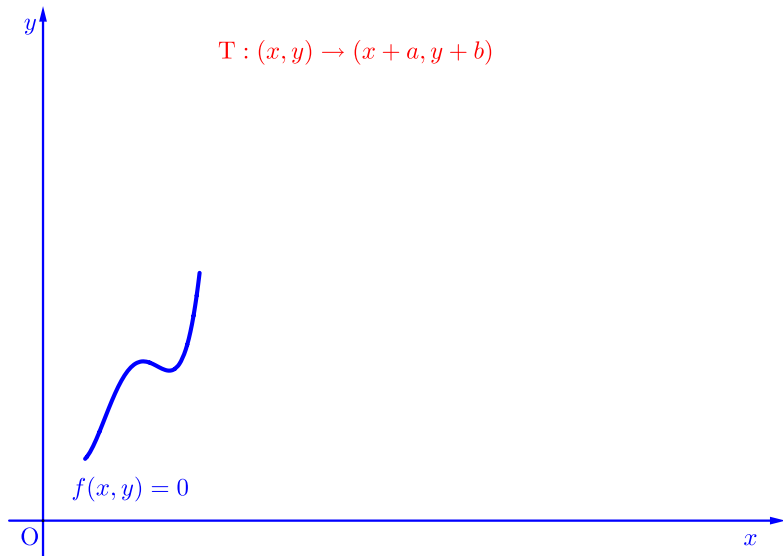
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Translation of $f(x, y) = 0$

▶ Start

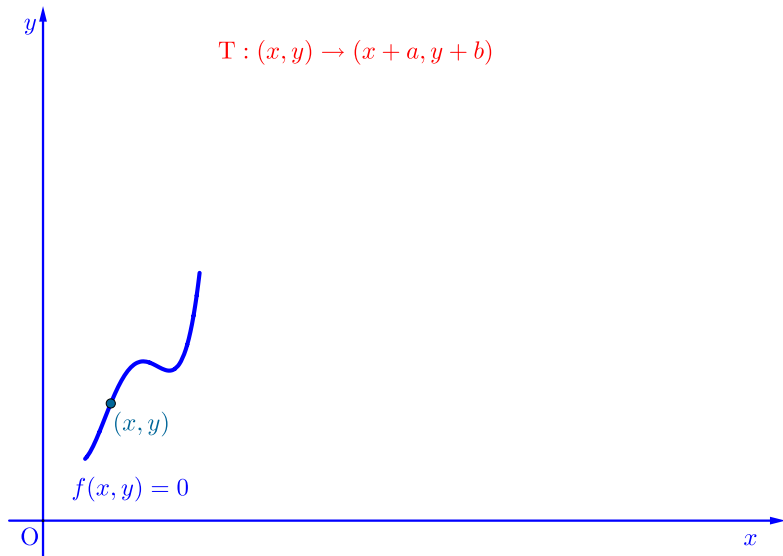
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Translation of $f(x, y) = 0$

▶ Start

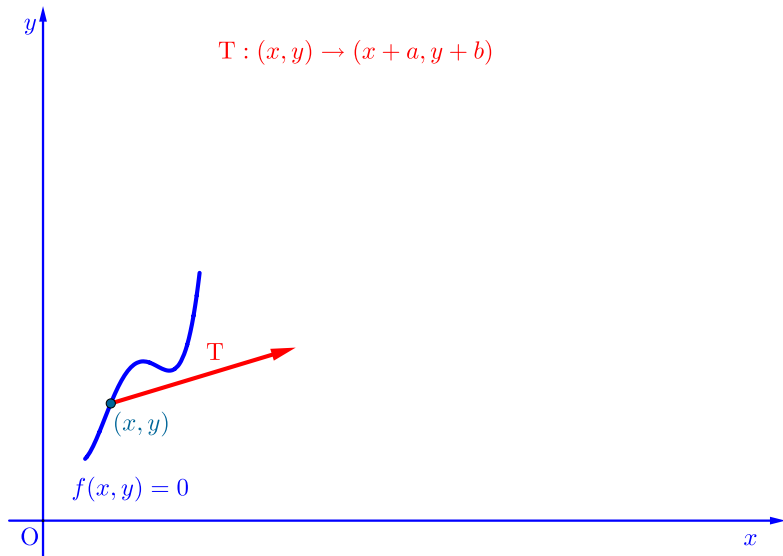
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Translation of $f(x, y) = 0$

▶ Start

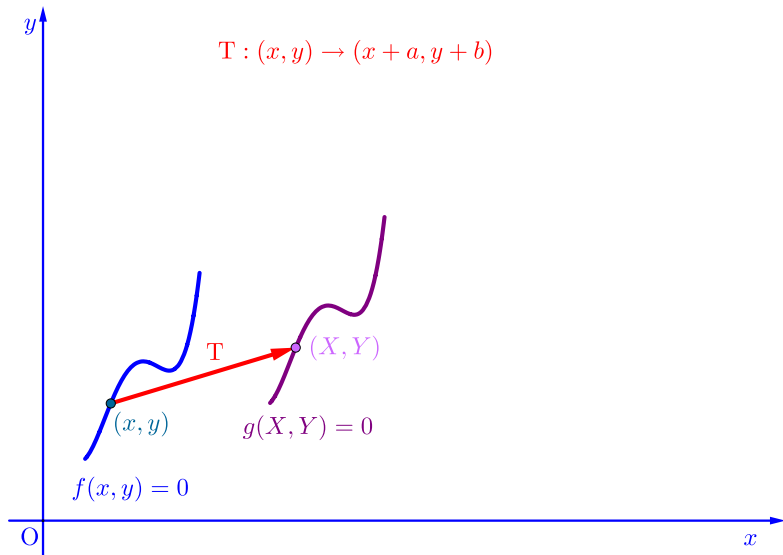
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Translation of $f(x, y) = 0$

▶ Start

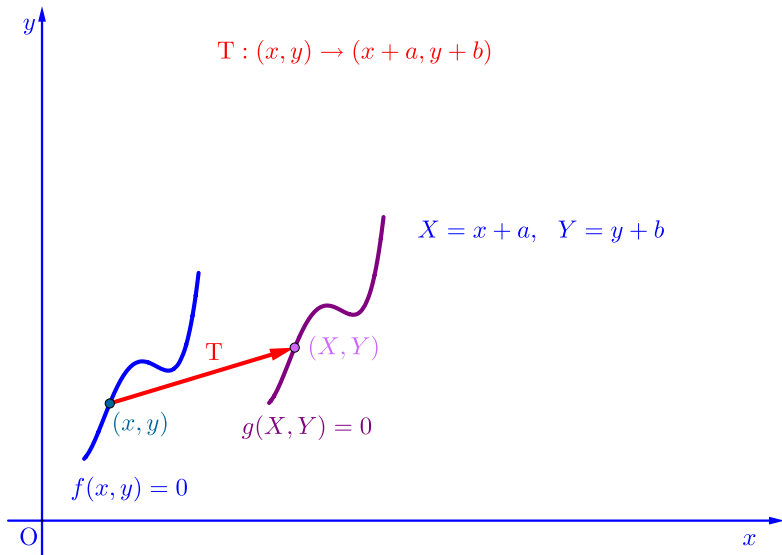
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Translation of $f(x, y) = 0$

▶ Start

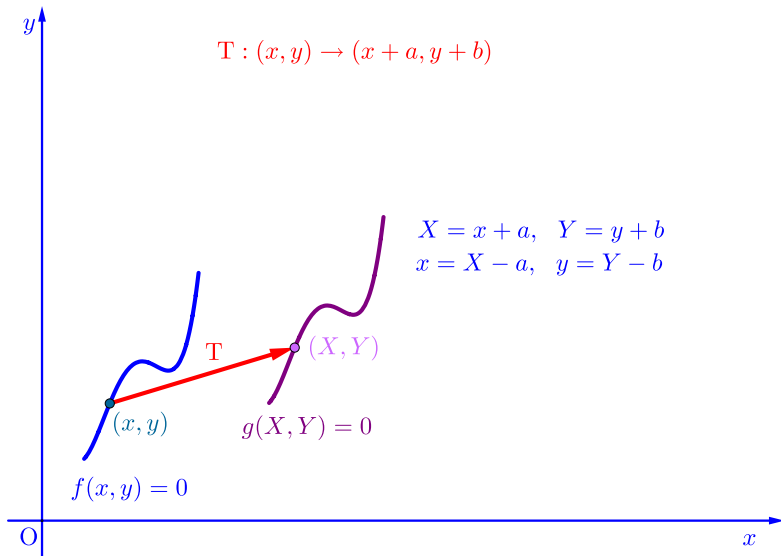
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Translation of $f(x, y) = 0$

▶ Start

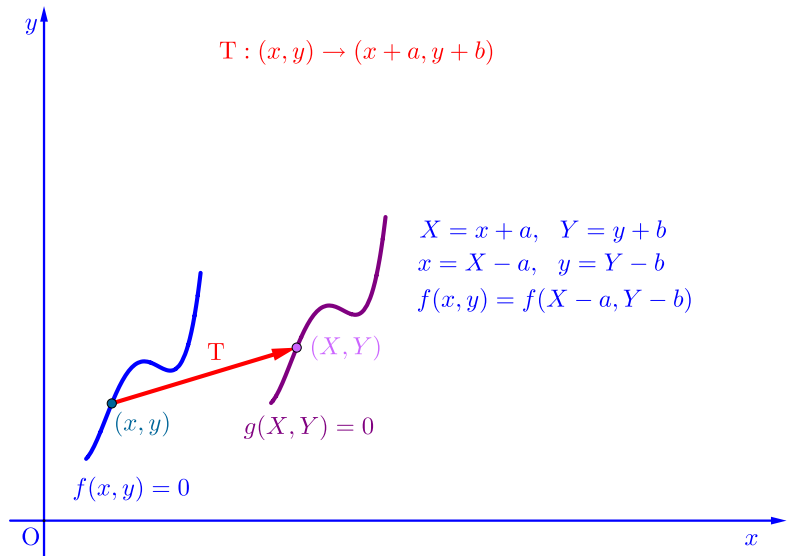
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Translation of $f(x, y) = 0$

▶ Start

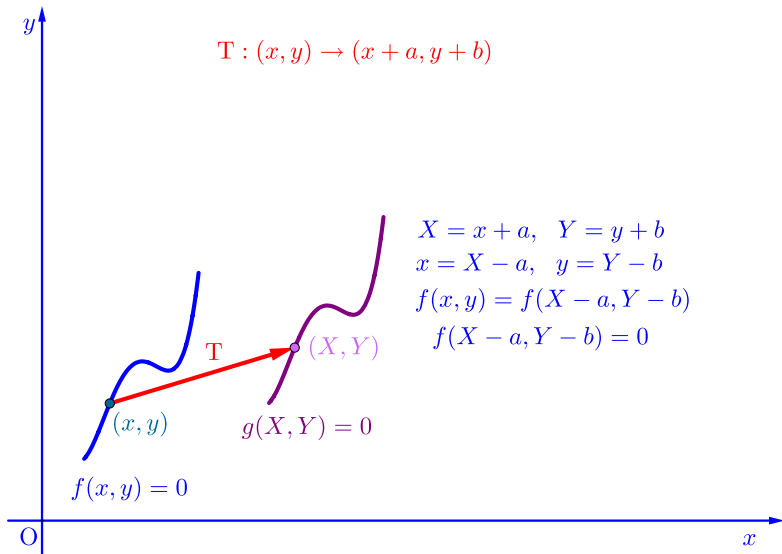
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Translation of $f(x, y) = 0$

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▶ End



Translation of $f(x, y) = 0$

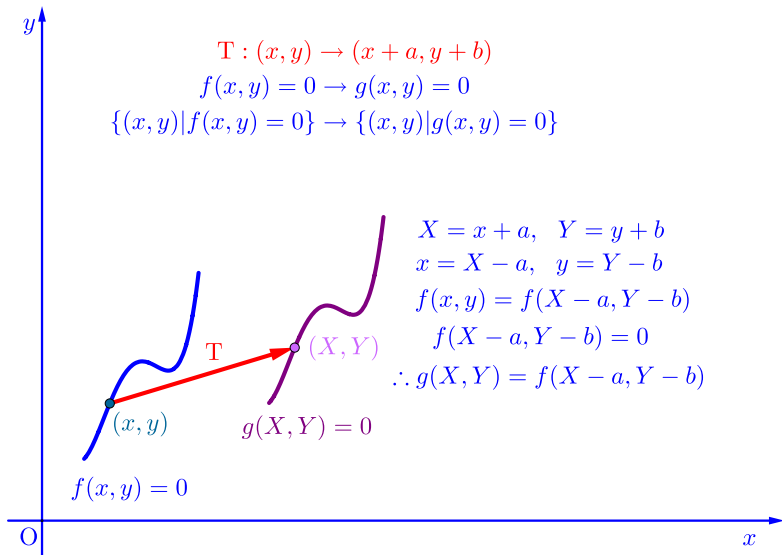
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▶ End

$$T : (x, y) \rightarrow (x + a, y + b)$$

$$f(x, y) = 0 \rightarrow g(x, y) = 0$$

$$\{(x, y) | f(x, y) = 0\} \rightarrow \{(x, y) | g(x, y) = 0\}$$



$$X = x + a, \quad Y = y + b$$

$$x = X - a, \quad y = Y - b$$

$$f(x, y) = f(X - a, Y - b)$$

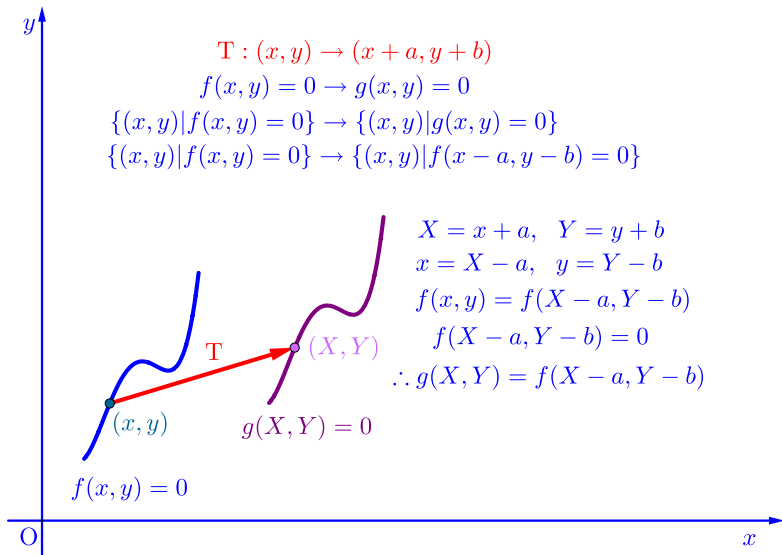
$$f(X - a, Y - b) = 0$$

$$\therefore g(X, Y) = f(X - a, Y - b)$$

Translation of $f(x, y) = 0$

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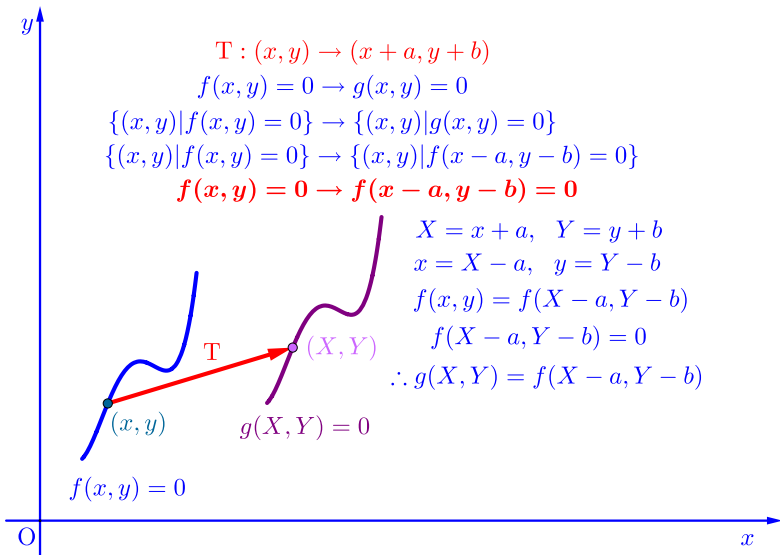
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Translation of $f(x, y) = 0$

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▶ End



Github:

<https://min7014.github.io/math20210929001.html>

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and you can see a picture moving.