

$f(x, y) = 0$ 의  $y = 0$ 에 대칭이동  
(Reflection about  $y = 0$  of  $f(x, y) = 0$ )

# Reflection about $y = 0$ of $f(x, y) = 0$

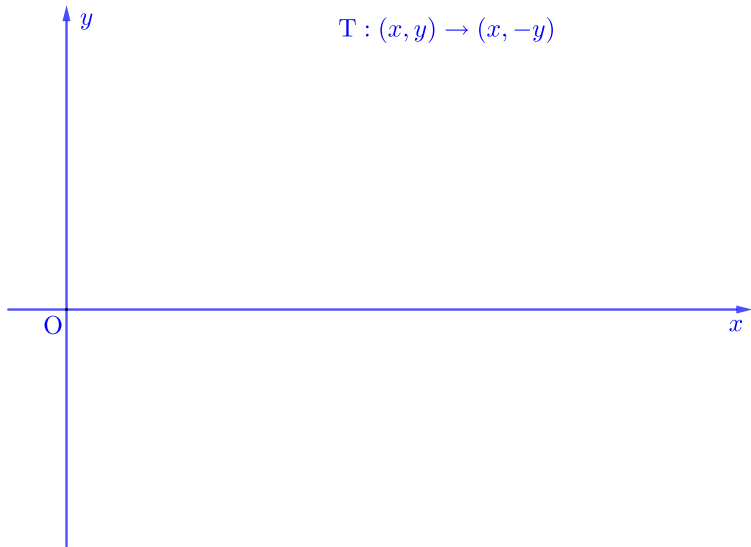
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# Reflection about $y = 0$ of $f(x, y) = 0$

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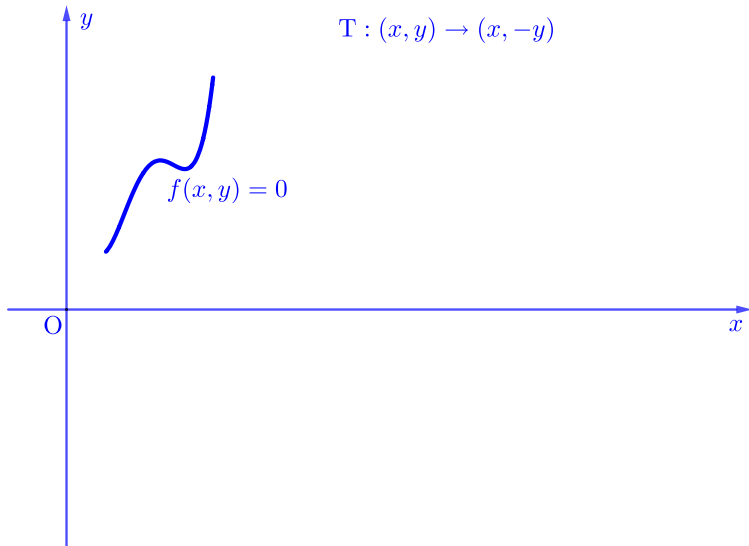
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# Reflection about $y = 0$ of $f(x, y) = 0$

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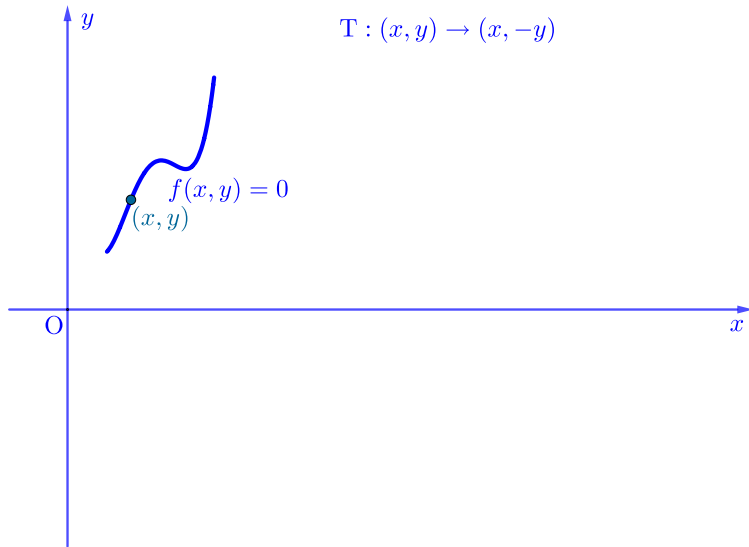
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# Reflection about $y = 0$ of $f(x, y) = 0$

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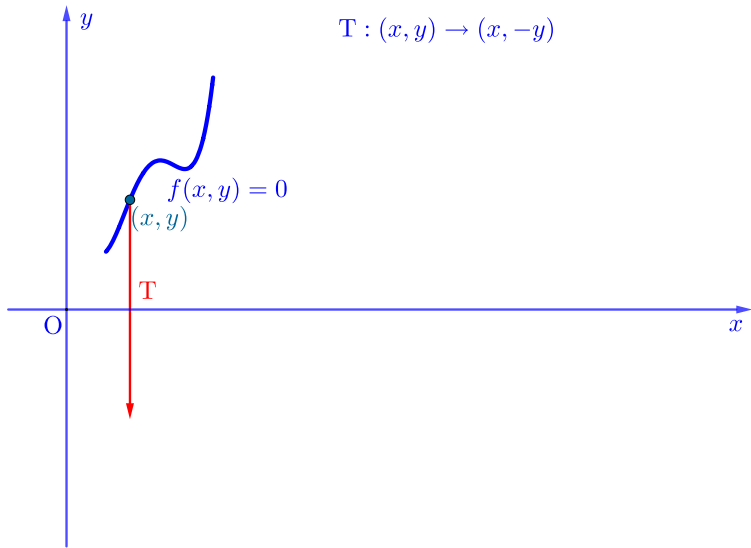
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# Reflection about $y = 0$ of $f(x, y) = 0$

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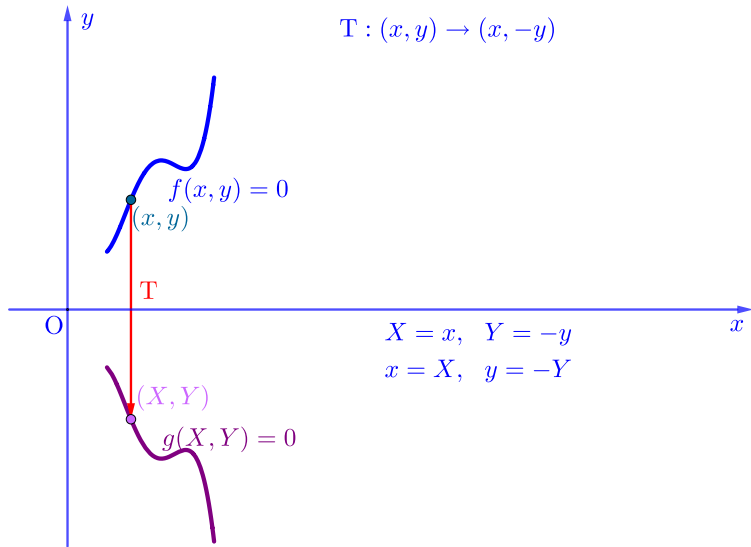




# Reflection about $y = 0$ of $f(x, y) = 0$

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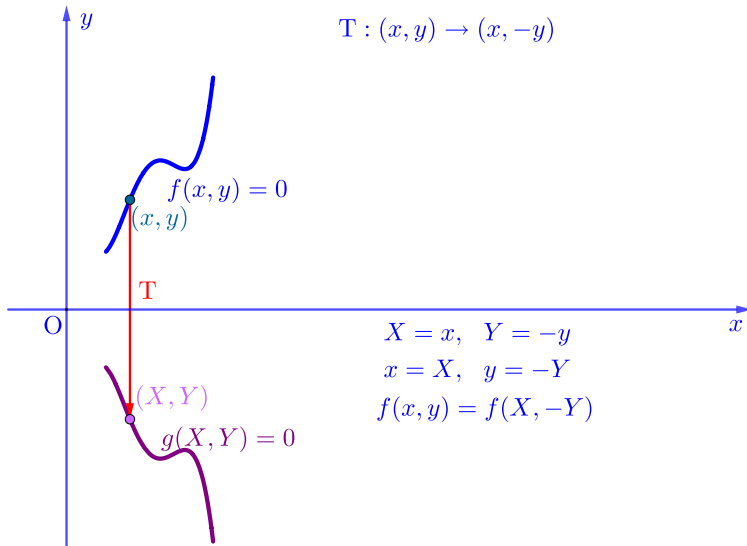
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▶ Start

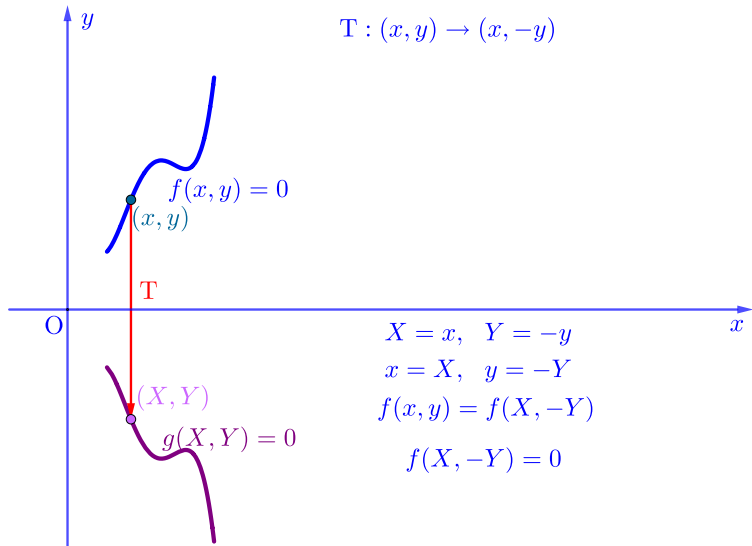
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# Reflection about $y = 0$ of $f(x, y) = 0$

▶ Start

▶ End



$$T: (x, y) \rightarrow (x, -y)$$

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

$(x, y)$

$T$

$O$

$x$

$$X = x, Y = -y$$

$$x = X, y = -Y$$

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

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

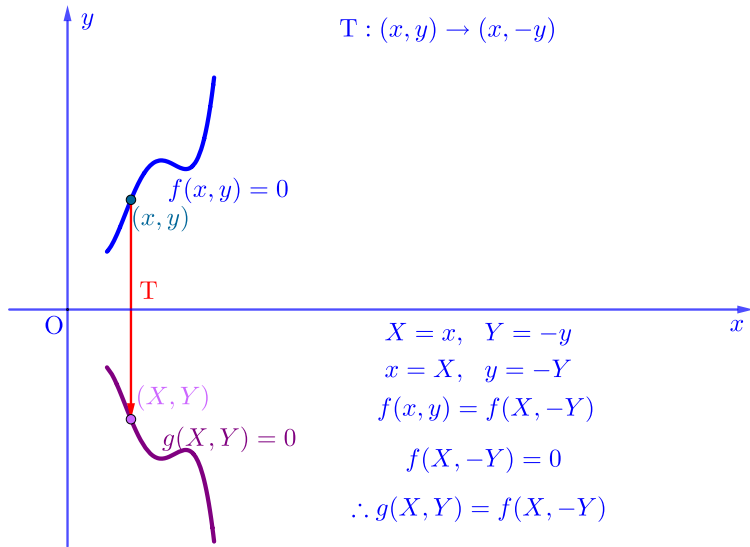
$(X, Y)$

$$g(X, Y) = 0$$

# Reflection about $y = 0$ of $f(x, y) = 0$

▶ Start

▶ End



$$T : (x, y) \rightarrow (x, -y)$$

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

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

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

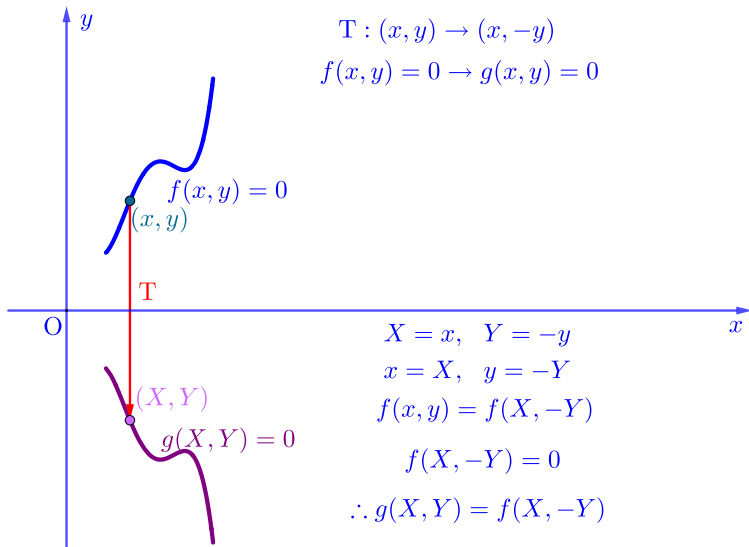
$$f(X, -Y) = 0$$

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

# Reflection about $y = 0$ of $f(x, y) = 0$

▶ Start

▶ End



$$T : (x, y) \rightarrow (x, -y)$$

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

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

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

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

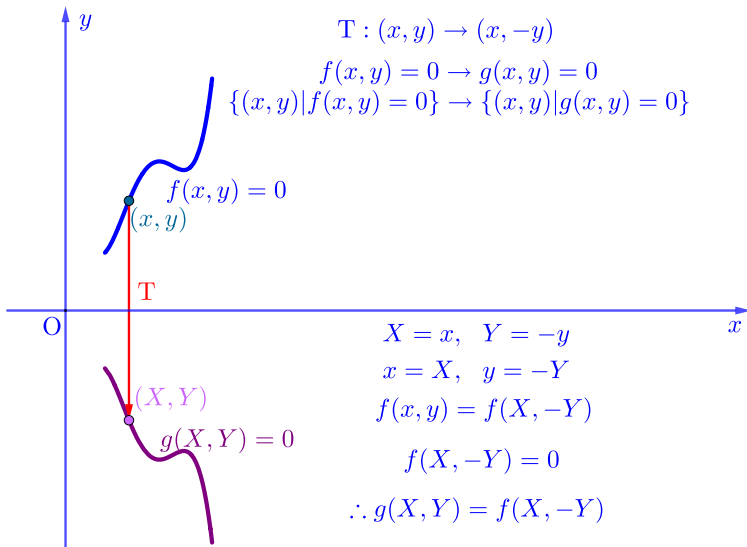
$$f(X, -Y) = 0$$

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

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▶ Start

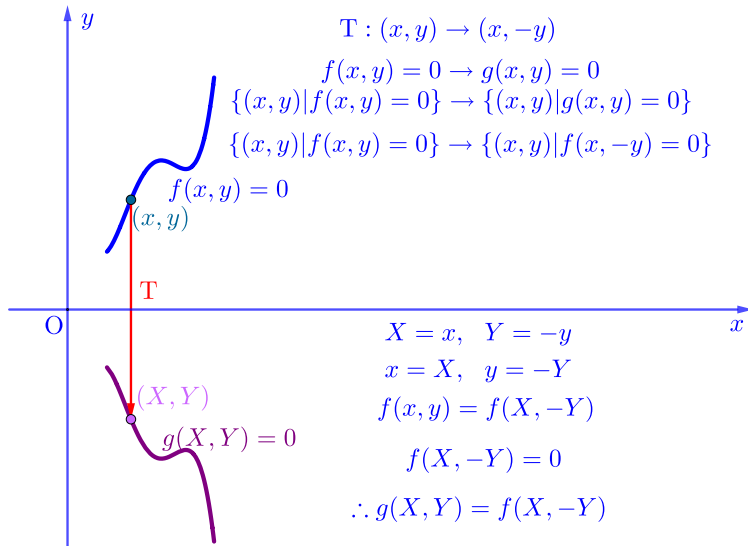
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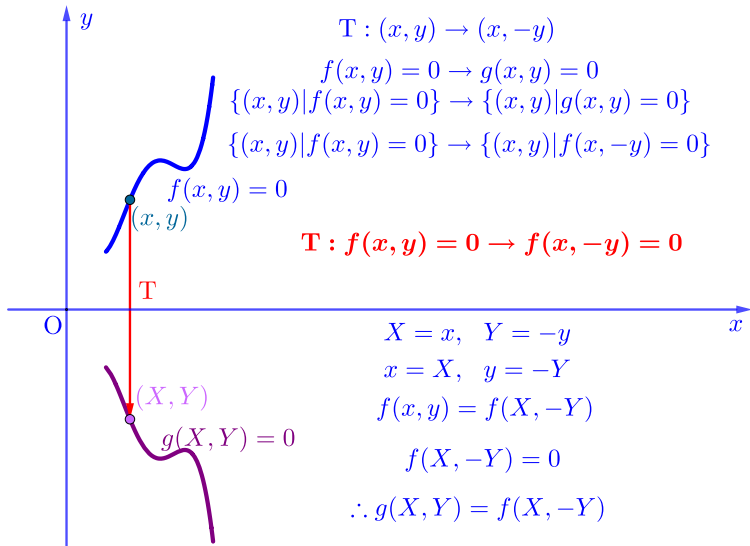
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# Reflection about $y = 0$ of $f(x, y) = 0$

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Github:

<https://min7014.github.io/math20211007001.html>

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and you can see a picture moving.