

함수의 $y = b$ 에 대칭이동

(Reflection about $y = b$ of a function)

Reflection about $y = b$ of a function

▶ Start

Reflection about $y = b$ of a function

▶ Start

$$y = b$$

Reflection about $y = b$ of a function

▶ Start

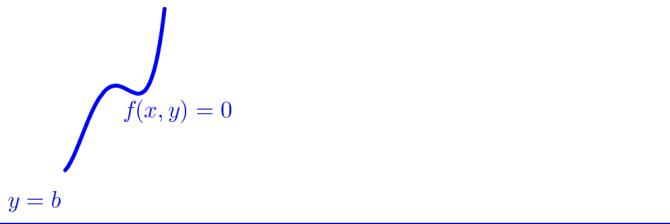
$$T : (x, y) \rightarrow (x, 2b - y)$$

$$y = b$$

Reflection about $y = b$ of a function

▶ Start

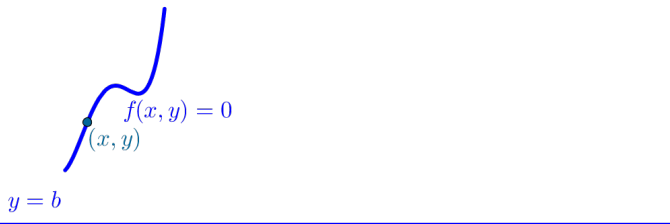
$$T : (x, y) \rightarrow (x, 2b - y)$$



Reflection about $y = b$ of a function

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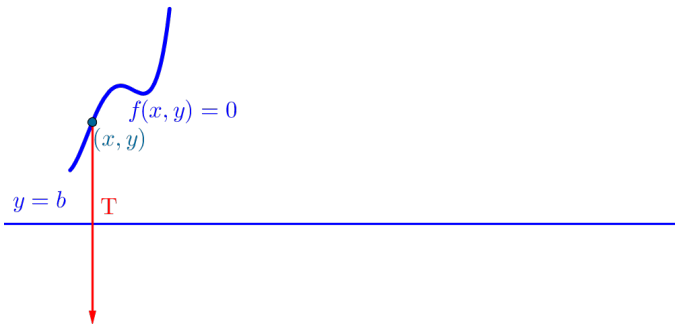
$$T : (x, y) \rightarrow (x, 2b - y)$$



Reflection about $y = b$ of a function

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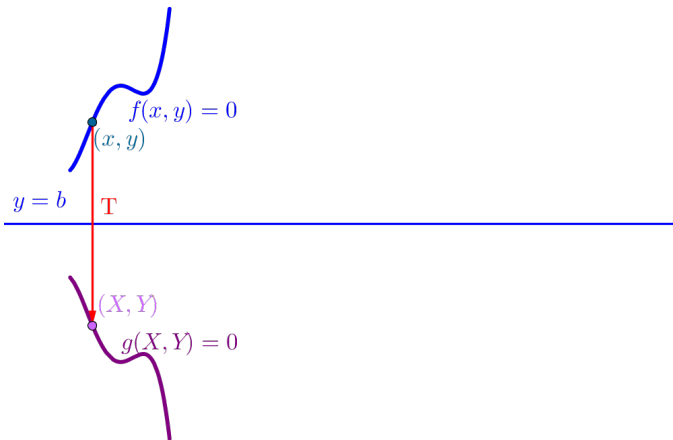
$$T : (x, y) \rightarrow (x, 2b - y)$$



Reflection about $y = b$ of a function

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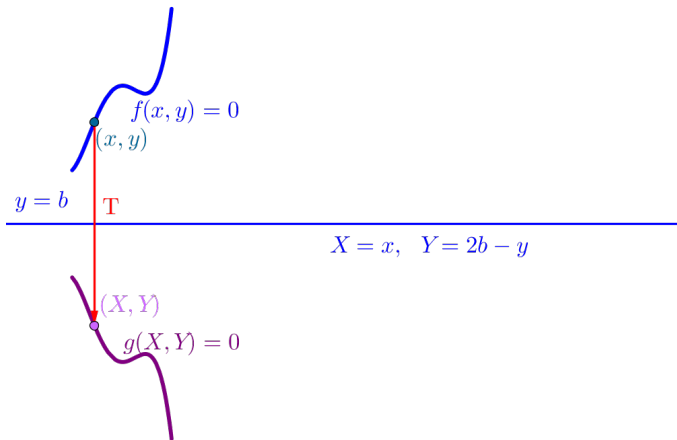
$$T : (x, y) \rightarrow (x, 2b - y)$$



Reflection about $y = b$ of a function

▶ Start

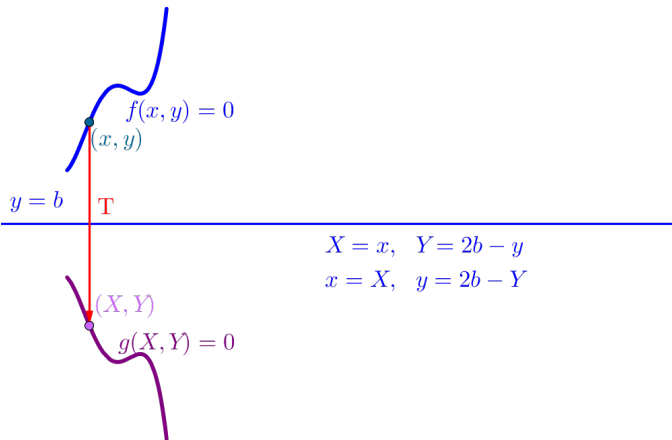
$$T : (x, y) \rightarrow (x, 2b - y)$$



Reflection about $y = b$ of a function

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$$T : (x, y) \rightarrow (x, 2b - y)$$



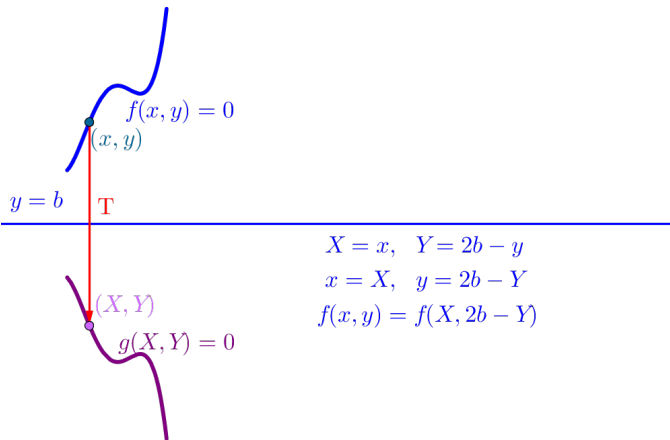
$$X = x, \quad Y = 2b - y$$

$$x = X, \quad y = 2b - Y$$

Reflection about $y = b$ of a function

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$$T : (x, y) \rightarrow (x, 2b - y)$$

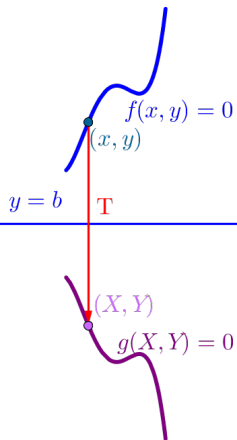


$$\begin{aligned} X &= x, & Y &= 2b - y \\ x &= X, & y &= 2b - Y \\ f(x, y) &= f(X, 2b - Y) \end{aligned}$$

Reflection about $y = b$ of a function

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$$T : (x, y) \rightarrow (x, 2b - y)$$

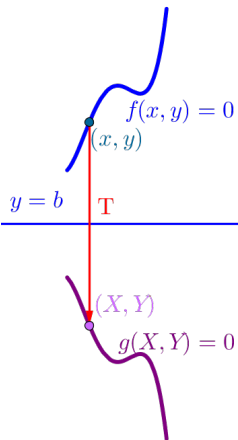


$$\begin{aligned} X &= x, & Y &= 2b - y \\ x &= X, & y &= 2b - Y \\ f(x, y) &= f(X, 2b - Y) \\ f(X, 2b - Y) &= 0 \end{aligned}$$

Reflection about $y = b$ of a function

▶ Start

$$T : (x, y) \rightarrow (x, 2b - y)$$



$$X = x, \quad Y = 2b - y$$

$$x = X, \quad y = 2b - Y$$

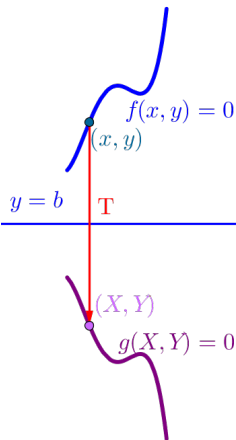
$$f(x, y) = f(X, 2b - Y)$$

$$f(X, 2b - Y) = 0$$

$$\therefore g(X, Y) = f(X, 2b - Y)$$

Reflection about $y = b$ of a function

▶ Start



$$T : (x, y) \rightarrow (x, 2b - y)$$

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

$$X = x, \quad Y = 2b - y$$

$$x = X, \quad y = 2b - Y$$

$$f(x, y) = f(X, 2b - Y)$$

$$f(X, 2b - Y) = 0$$

$$\therefore g(X, Y) = f(X, 2b - Y)$$

Reflection about $y = b$ of a function

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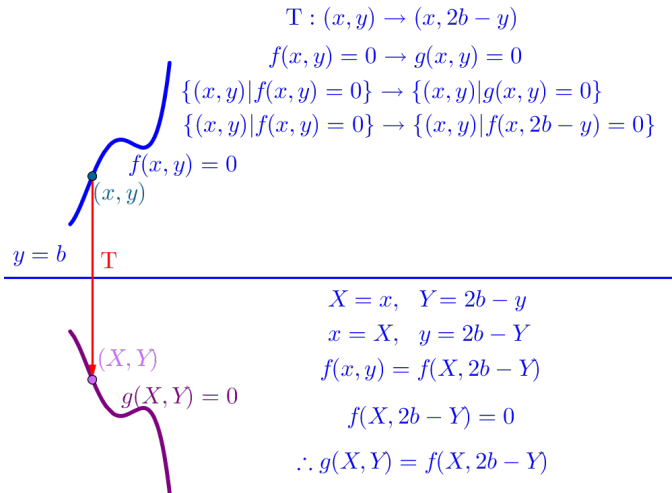
$T : (x, y) \rightarrow (x, 2b - y)$
 $f(x, y) = 0 \rightarrow g(x, y) = 0$
 $\{(x, y) | f(x, y) = 0\} \rightarrow \{(x, y) | g(x, y) = 0\}$

$f(x, y) = 0$
 (x, y)
 $y = b$
 T
 (X, Y)
 $g(X, Y) = 0$

$X = x, \quad Y = 2b - y$
 $x = X, \quad y = 2b - Y$
 $f(x, y) = f(X, 2b - Y)$
 $f(X, 2b - Y) = 0$
 $\therefore g(X, Y) = f(X, 2b - Y)$

Reflection about $y = b$ of a function

▶ Start



Reflection about $y = b$ of a function

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$T : (x, y) \rightarrow (x, 2b - y)$

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

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

$\{(x, y) | f(x, y) = 0\} \rightarrow \{(x, y) | f(x, 2b - y) = 0\}$

$f(x, y) = 0$

(x, y)

$y = b$

T

(X, Y)

$g(X, Y) = 0$

$T : f(x, y) = 0 \rightarrow f(x, 2b - y) = 0$

$X = x, \quad Y = 2b - y$

$x = X, \quad y = 2b - Y$

$f(x, y) = f(X, 2b - Y)$

$f(X, 2b - Y) = 0$

$\therefore g(X, Y) = f(X, 2b - Y)$

Reflection about $y = b$ of a function

▶ Home

$T : (x, y) \rightarrow (x, 2b - y)$

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

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

$\{(x, y) | f(x, y) = 0\} \rightarrow \{(x, y) | f(x, 2b - y) = 0\}$

$f(x, y) = 0$

(x, y)

$y = b$

T

(X, Y)

$g(X, Y) = 0$

$T : f(x, y) = 0 \rightarrow f(x, 2b - y) = 0$

$X = x, \quad Y = 2b - y$

$x = X, \quad y = 2b - Y$

$f(x, y) = f(X, 2b - Y)$

$f(X, 2b - Y) = 0$

$\therefore g(X, Y) = f(X, 2b - Y)$