

Piecewise Functions

Sketch the following functions:

(a) $f(x) = 2$ for $-5 \leq x < 0$

$f(x) = 2 - x$ for $0 \leq x \leq 3$

$f(x) = -1$ for $3 < x \leq 5$

(b) $f(x) = x$ for $-4 \leq x < 0$

$f(x) = x^2$ for $0 \leq x \leq 4$

(c) $f(x) = x^2 + 1$ for $-4 \leq x < 0$

$f(x) = 1$ for $0 \leq x \leq 2$

$f(x) = x - 1$ for $2 < x \leq 4$

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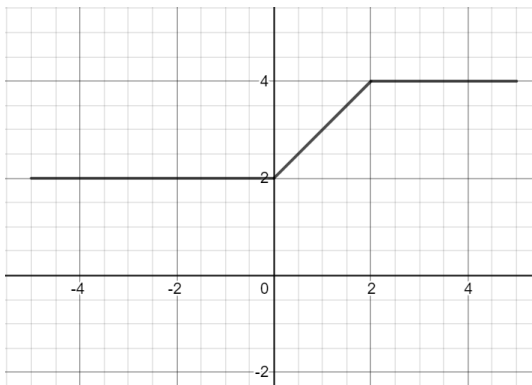
$f(x) = x^2$ for $0 \leq x \leq 4$

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$f(x) = 1$ for $0 \leq x \leq 2$

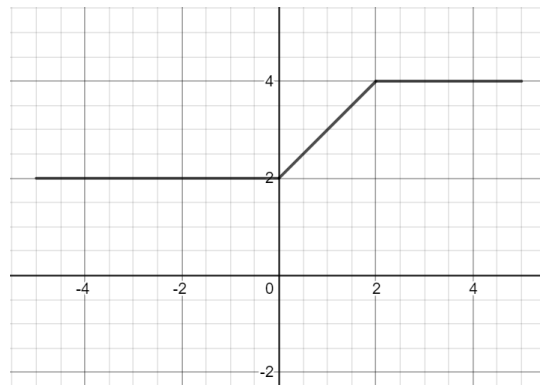
$f(x) = x - 1$ for $2 < x \leq 4$

(a) Given the graph of $y = f(x)$, define the function, stating the domain of each part clearly.



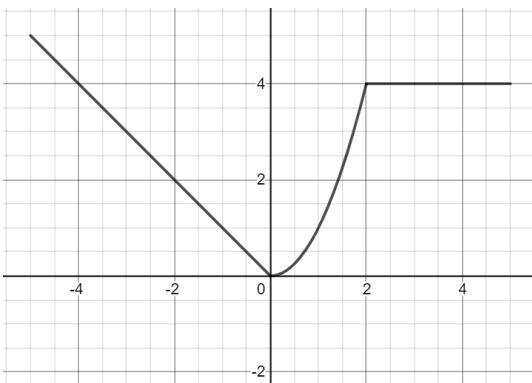
(b) Evaluate $f(1)$

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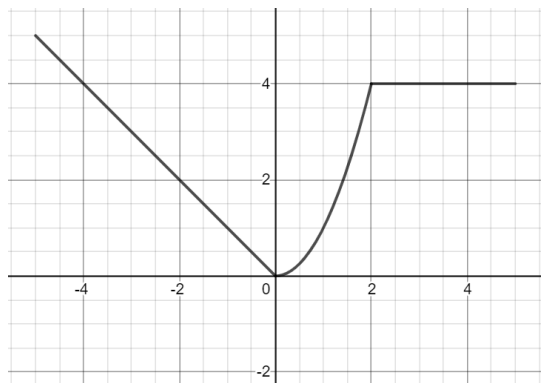
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(b) Solve $f(x) = 1$

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