3.2 Function Notation

$$y = f(x)$$

Evaluating a Function

1. If $f(x) = x^2 + 2x - 3$ find:

a. $f(1)$ b. $f(3z)$ c. $f(x-1)$

2. If $g(x) = \frac{x^2-9x+14}{x^2-10x+25}$, find the following values. If applicable, click "undefined".

a. $g(-1)$ b. $g(5)$

Application

Tammy rented a truck for one day. There was a base fee of $9.00 and an additional charge of 8 cents for each mile driven. The total cost, C in dollars, for driving x miles is given by the function:

$C(x) = 9.00 + 0.08x.$

a. What is the total rental cost if Tammy drove 40 miles?

b. How many miles could Tammy drive for $20?

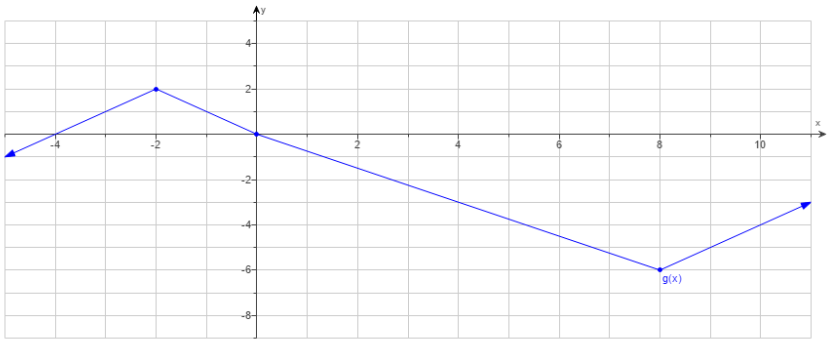
Using a graph

Use the graph to find

a. $f(4)$

b. $f(-1)$

c. If $f(x) = 2,$ what is x?



Using a Table

Use the table to find:

a. $f(1)$

b. $g(3)$

c. $g(2) - f(2)$

d. $\sqrt{f(-1) - f(3)} - [g(3)]^2 + f(-1) \div g(3) \cdot g(-1)$

x	$f(x)$	$g(x)$
-1	4	5
0	0	7
1	-1	1
2	-7	0
3	-5	-4