

Exercise Set 1 (Calculator)

1

If $f(x) = x^2 + x + k$, where k is a constant, and $f(2) = 10$, what is the value of $f(-2)$?

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2

The minimum value of the function $y = h(x)$ corresponds to the point $(-3, 2)$ on the xy -plane. What is the maximum value of $g(x) = 6 - h(x + 2)$?

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3

The function g is defined by the equation $g(x) = ax + b$, where a and b are constants. If $g(1) = 7$ and $g(3) = 6$, what is the value of $g(-5)$?

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4

Let the function h be defined by the equation $h(x) = f(g(x))$ where $f(x) = x^2 - 1$ and $g(x) = x + 5$. What is the value of $h(2)$?

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Questions 5–9 refer to the table below.

x	$f(x)$	$k(x)$
1	3	5
2	4	6
3	5	1
4	6	2
5	1	3
6	2	4

5

According to the table above, $f(3) =$

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6

According to the table above, $f(k(6)) =$

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7

According to the table above, $k(k(6)) =$

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8

According to the table above, if $k(f(x)) = 5$, then what is the value of x ?

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