What Did They Call the Duck Who Became a Test Pilot?

Follow the directions given for each section. Cross out each box in the rectangle below that contains a correct answer. When you finish, print the letters from the remaining boxes in the spaces at the bottom of the page.

I For each function, find the indicated values.

(1) $f(x) = 2x - 5$	A. $f(6)$	B. $f(1)$
(2) $f(x) = x^2 - 4$	A. $f(12)$	B. $f(-2)$
(3) $g(x) = x^2 - 7x + 1$	A. $g(3)$	B. $g(0)$
(4) $h(x) = \dfrac{x+3}{x^2+x-6}$	A. $h(4)$	B. $h(-1)$

II Find the range of each function for the given domain.

(5) $f(x) = 3x + 2$ $\quad D = \{-2, 0, 2\}$

By Hand

(6) $g(x) = 9 - 5x$ $\quad D = \{-3, -1, 1\}$

(7) $F(x) = 2x^2 - 1$ $\quad D = \{5, 1, -4\}$

(8) $h(x) = x^2 - 8x + 3$ $\quad D = \{1, 0, -1\}$

On Calculator

(9) $f(t) = \dfrac{t^2 + 4t}{t - 6}$ $\quad D = \{4, 0, -4\}$

(10) $G(n) = -n^2 + 2n + 3$ $\quad D = \{-2, 1, 4\}$

SK $\{49, 1, 31\}$	Y 0	S $\frac{1}{2}$	AF $\{49, -1, 9\}$	E $\{-16, 0\}$	IL 7	LY $\{-16, 8, -2\}$
BE $\{24, 14, 4\}$	ER $\{-5, 0\}$	ST $\{-5, 4\}$	QU $-\frac{3}{2}$	IT $-\frac{1}{3}$	I -3	A $\{24, 14, -7\}$
DU -11	CK $\{-4, 7, 12\}$	MB 140	IN $\{-4, 2, 8\}$	H $\{-4, 3, 12\}$	ER $\{-4, 2, -1\}$	UP 1

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Key

What Did They Call the Duck Who Became a Test Pilot?

Follow the directions given for each section. Cross out each box in the rectangle below that contains a correct answer. When you finish, print the letters from the remaining boxes in the spaces at the bottom of the page.

I For each function, find the indicated values.

(1) $f(x) = 2x - 5$ A. $f(6) = 2(6)-5 = 7$ B. $f(1) = 2(1)-5 = -3$

(2) $f(x) = x^2 - 4$ A. $f(12) = (12)^2-4 = 140$ B. $f(-2) = (-2)^2-4 = 0$

(3) $g(x) = x^2 - 7x + 1$ A. $g(3) = (3)^2-7(3)+1 = -11$ B. $g(0) = 0^2-7(0)+1 = 1$

(4) $h(x) = \dfrac{x+3}{x^2+x-6}$ A. $h(4) = \dfrac{4+3}{4^2+4-6} = \dfrac{7}{14} = \dfrac{1}{2}$ B. $h(-1) = \dfrac{-1+3}{(-1)^2+(-1)-6} = \dfrac{2}{-6} = -\dfrac{1}{3}$

II Find the range of each function for the given domain.

(5) $f(x) = 3x + 2$ $D = \{-2, 0, 2\}$ $f(-2) = 3(-2)+2 = -4$, $f(0) = 3(0)+2 = 2$, $f(2) = 3(2)+2 = 8$
$R = \{-4, 2, 8\}$

Hard (6) $g(x) = 9 - 5x$ $D = \{-3, -1, 1\} = 24, 14, 4$
$R = \{4, 14, 24\}$

(7) $F(x) = 2x^2 - 1$ $D = \{5, 1, -4\}$
49 1 31

Calc (8) $h(x) = x^2 - 8x + 3$ $D = \{1, 0, -1\}$
-4 3 12

(9) $f(t) = \dfrac{t^2+4t}{t-6}$ $D = \{4, 0, -4\}$ $R = \{-16, 0\}$
-16 0 0

(10) $G(n) = -n^2 + 2n + 3$ $D = \{-2, 1, 4\}$ $R = \{-5, 4\}$
-5 4 -5

~~SK~~ {49, 1, 31}	~~Y~~ 0	~~S~~ $\frac{1}{2}$	AF {49, −1, 9}	~~E~~ {−16, 0}	~~IL~~ 7	LY {−16, 8, −2}
~~BE~~ {24, 14, 4}	ER {−5, 0}	~~ST~~ {−5, 4}	QU $-\frac{3}{2}$	IT $-\frac{1}{3}$	I −3	A {24, 14, −7}
~~DU~~ −11	CK {−4, 7, 12}	~~MB~~ 140	~~IN~~ {−4, 2, 8}	~~H~~ {−4, 3, 12}	ER {−4, 2, −1}	~~UP~~ 1

A	F	L	Y	E	R	Q	V	A	C	K	E	R

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OBJECTIVE 1–b: To find values of a function; to find the range of a function for a given domain.