

Name _____

Date _____ Period _____

Identifying Input vs. Output

Answer the given questions, then use that information to solve for the missing information (i.e. if the input is given, find the output; if the output is given, find the input).

$$g(a) = -17 + 3a \qquad f(x) = 2x^2 + 8$$

1) Find $g(9)$.

Which function will you be using? _____

Is 9 the input or the output? _____ So which are you trying to find? _____

Plug in the 9 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

2) $g(a) = 4$, find a .

Which function will you be using? _____

Is 4 the input or the output? _____ So which are you trying to find? _____

Plug in the 4 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

3) $f(x) = 106$, find x .

Which function will you be using? _____

Is 106 the input or the output? _____ So which are you trying to find? _____

Plug in the 106 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

$$g(a) = -17 + 3a \qquad f(x) = 2x^2 + 8$$

4) Find $f(-5)$.

Which function will you be using? _____

Is -5 the input or the output? _____ So which are you trying to find? _____

Plug in the -5 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

5) Find $g(-9)$.

Which function will you be using? _____

Is -9 the input or the output? _____ So which are you trying to find? _____

Plug in the -9 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

6) $f(x) = 26$, find x .

Which function will you be using? _____

Is 26 the input or the output? _____ So which are you trying to find? _____

Plug in the 26 wherever it should be in the function:

_____ and simplify or solve for the missing piece...

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Function Tables

Functions can also use a variable such as n to be the input of the function and $f(n)$, read "f of n" to represent the output of the function.

Rule: $3n + 4$

n	$f(n)$
-1	1
0	4
1	7
2	10

Fill in the tables for each function rule below.

1. rule: $2(n-5)$

n	$f(n)$
0	
1	
2	
3	

2. rule: $2x(x-1)$

x	$f(x)$
1	
2	
3	
4	

3. rule: $n(n+2)$

n	$f(n)$
1	
2	
3	
4	

4. rule: $3x(x-4)$

x	$f(x)$
0	
1	
2	
3	

5. rule: $\frac{1}{n+3}$

n	$f(n)$
1	
2	
3	
4	

6. rule: $2x-3$

x	$f(x)$
1	
2	
3	
4	

7. rule: $\frac{2-n}{2}$

n	$f(n)$
0	
2	
4	
6	
8	

8. rule: $4x-x$

x	$f(x)$
-2	
-1	
0	
1	
2	

9. rule: $3-2n$

n	$f(n)$
-2	
-1	
0	
1	
2	