

SHARP

Worksheet 21: Functions and Relationships

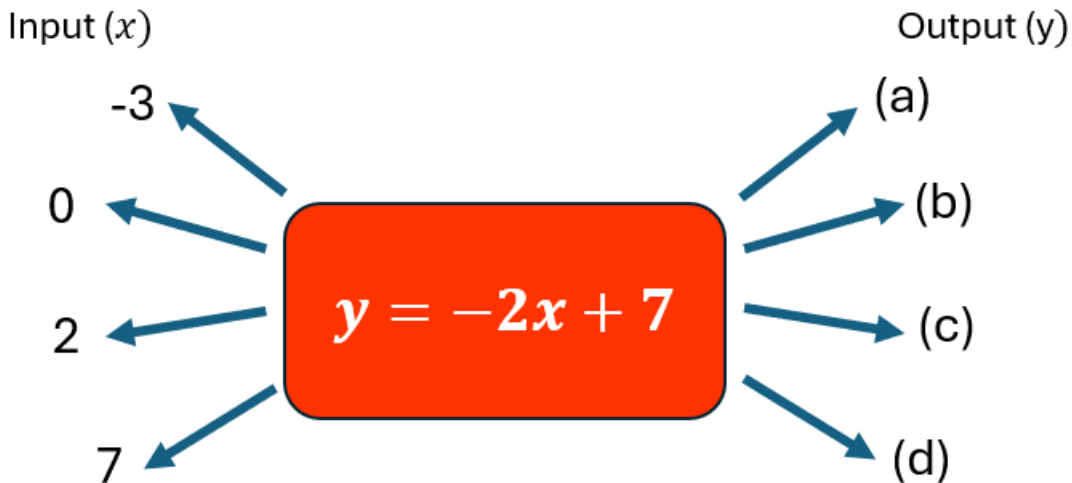
1) Use the given equation to determine the output values in the table below: The first one has been done as an example.

$$y = 3(x - 4)$$

x	-2	-1	0	1	2
y	-18	(b)	(c)	(d)	(e)

a) $y = 3(-2 - 4)$
 $y = 3(-6)$
 $y = -18$

2) Use the given equation to determine the output values in the spider diagram below:



3) The equation $\frac{n}{2} + 3$ is given. If the input values are $\{-4; 0; 1; 2; 6\}$. Determine the output values.

4) The equation $2x^2 - 8$ is given. If the input values are $\{-4; -2; 0; 2; 4; 6\}$. Determine the output values

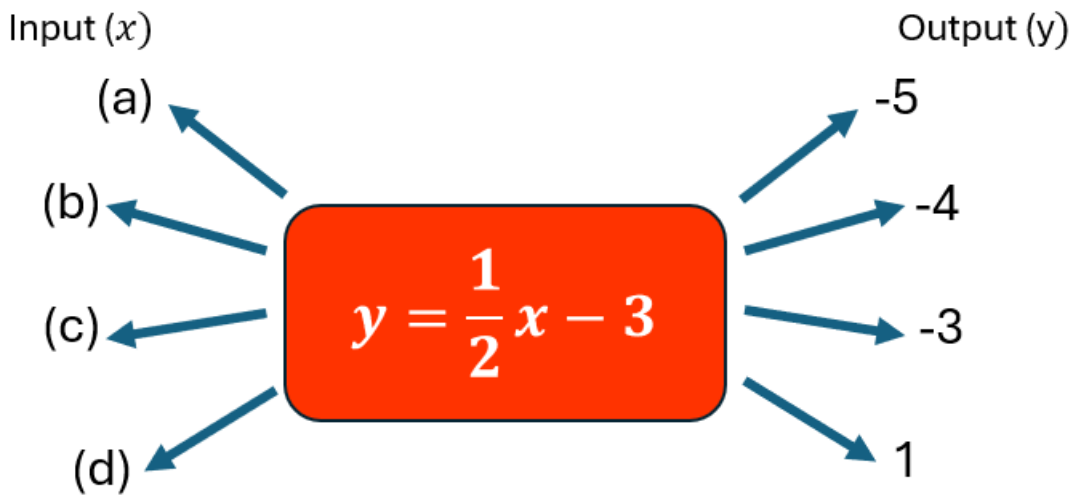
5) The following output values are given. Use inverse operations to determine the input values in the table below.

$$y = 5x - 6$$

x	(a)	(b)	(c)	(d)	(e)
y	-26	-11	9	34	44

6) The equation $y = -2x - 5$ is given. If the output values are $\{5; -1; -5; -11; -13\}$. Determine the input values.

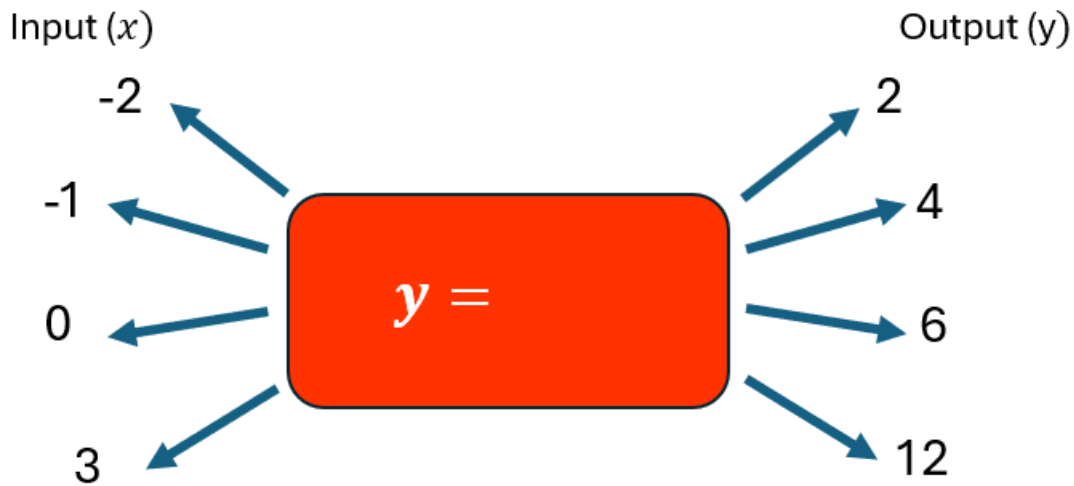
7) Determine in the missing values in the spider diagram below:



8) A new housing development in your area displays the following data. An empty stand costs R300 000. Represent the data below as a flow diagram. Make sure to include the equation.

<i>Floor Space in m²</i>	90	120	180	200	250
Total cost of house including stand.	R705000	R840000	R1110000	R1200000	R1425000

- 9) Determine the equation for the spider diagram below:
Hint: Use your theory on number patterns to help.



- 10) Determine the equation for the table below.

x	-2	-1	0	1	4
y	3,5	$3\frac{3}{4}$	4	$4\frac{1}{4}$	5