



**Exercice 1 (2.5 pts)**

- a) Given the function  $f$  defined by the expression  $f : x \mapsto 4x - 6$ , calculate the images under  $f$  of the following numbers: 2 ; -6
- b) Given the function  $g$  defined by the following expression  $g : x \mapsto (x + 3)^2$  calculate the images under  $g$  of the following numbers: 0 ; 5 ; -0.5

**Exercice 2 (5 pts)**

A function  $h$  has the following table of values

$x$	-2	-0.5	0	1	2		5
$h(x)$	-4	-3.25		-2.5	-2	-1	

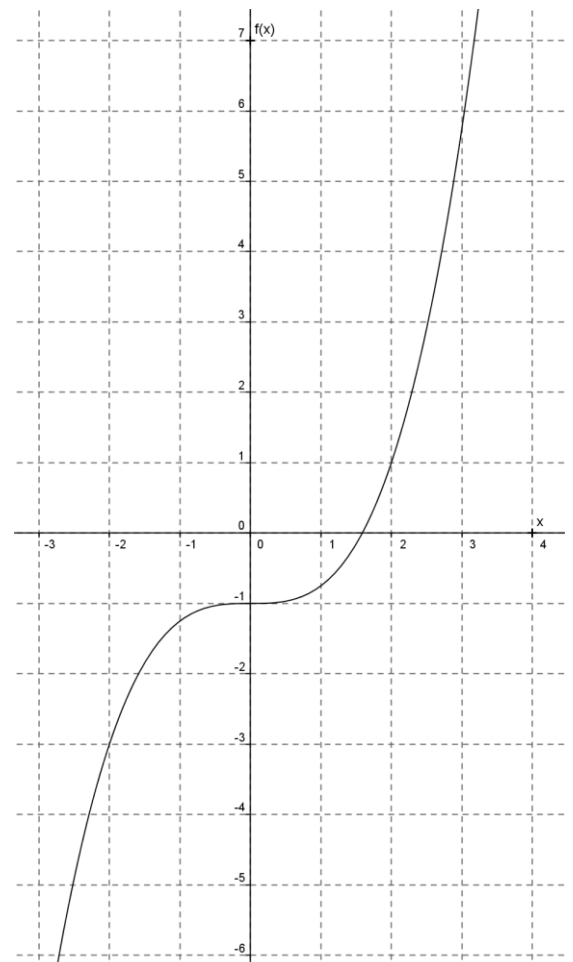
- a) Give an argument of -2 under the function  $h$ ?
- b) What is the image of -2 under the function  $h$ ?
- c) Given that the function  $h$  is defined by the expression  $h(x) = \frac{x}{2} - 3$ , complete the table above.
- d) On the coordinate system at the back, using the results in table above, plot the points belonging to the graph of  $h$ . Join up these points using a ruler.

**Exercice 3 (4 pts)**

The graph opposite is of a function  $k$ .

From the graph, find:

- The image of 2 under the function  $k$ .
- The image of -2.5 under the function  $k$ .
- An argument of 3 under the function  $k$ .
- An argument of -3 under the function  $k$ .



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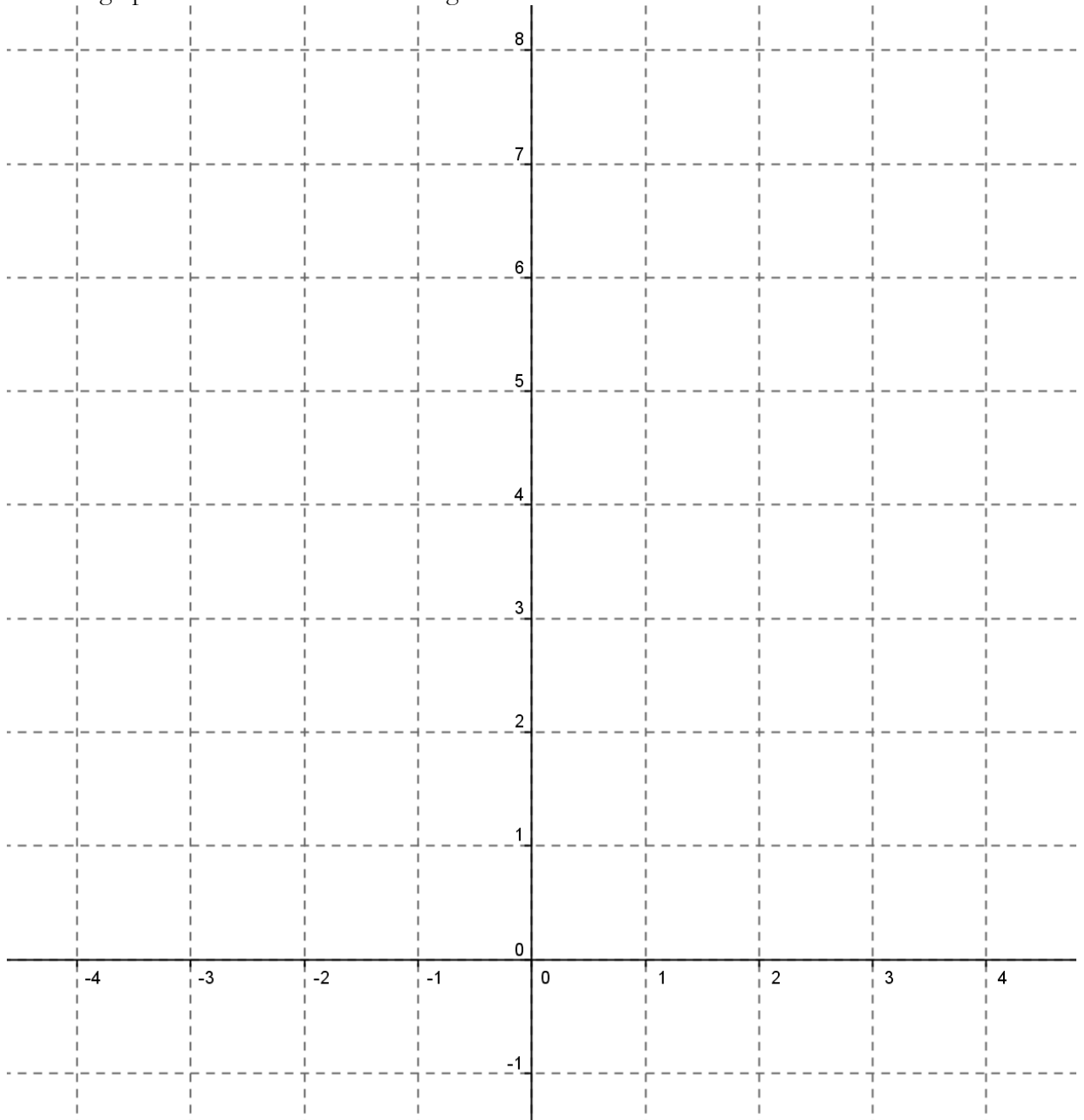
**Exercise 4 (8,5 pts)**

Given the function  $f$  defined by  $f(x) = 0.5 \times x^2 - 1$

1) Complete the table below:

x	-4.5	-4	-3	-2	-1	-0.5	0	-0.5	1	2	3	4	4.5
f(x)													

2) Draw the graph of the function  $f$  in the diagram below.



3) Using the graph, find the arguments of 7.

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