

Sketch the following by using a table and answer the following questions.

- Write down the domain.
- Write down the range.
- Find the coordinates of the turning point.
- Does the function have a minimum or a maximum value?
- Find the coordinates of the y -intercept.
- Write down the equation of the symmetry axis.

(1) $f = \{(x; y) / y = -2x^2\}$

x	-2	-1	0	1	2		
y	-8	-2	0	-2	-8		

(a) $x \in \mathbb{R}$

(b) $y \leq 0$

(c) $(0; 0)$

(d) Maximum of 0

(e) $(0; 0)$

(f) $x = 0$

(2) $h(x) = x^2 + 3$

x	-2	-1	0	1	2		
y	7	4	3	4	7		

(a) $x \in \mathbb{R}$

(b) $y \geq 3$

(c) $(0; 3)$

(d) Minimum of 3

(e) $(0; 3)$

(f) $x = 0$

(3) $k: x \rightarrow 2 - x^2$

x	-2	-1	0	1	2		
y	-2	1	2	1	-2		

(a) $x \in \mathbb{R}$

(b) $y \leq 2$

(c) $(0; 2)$

(d) Maximum of 2

(e) $(0; 2)$

(f) $x = 0$

(4) $t(x) = 1 + 2x^2$

x	-2	-1	0	1	2		
y	9	3	1	3	9		

(a) $x \in \mathbb{R}$

(b) $y \geq 1$

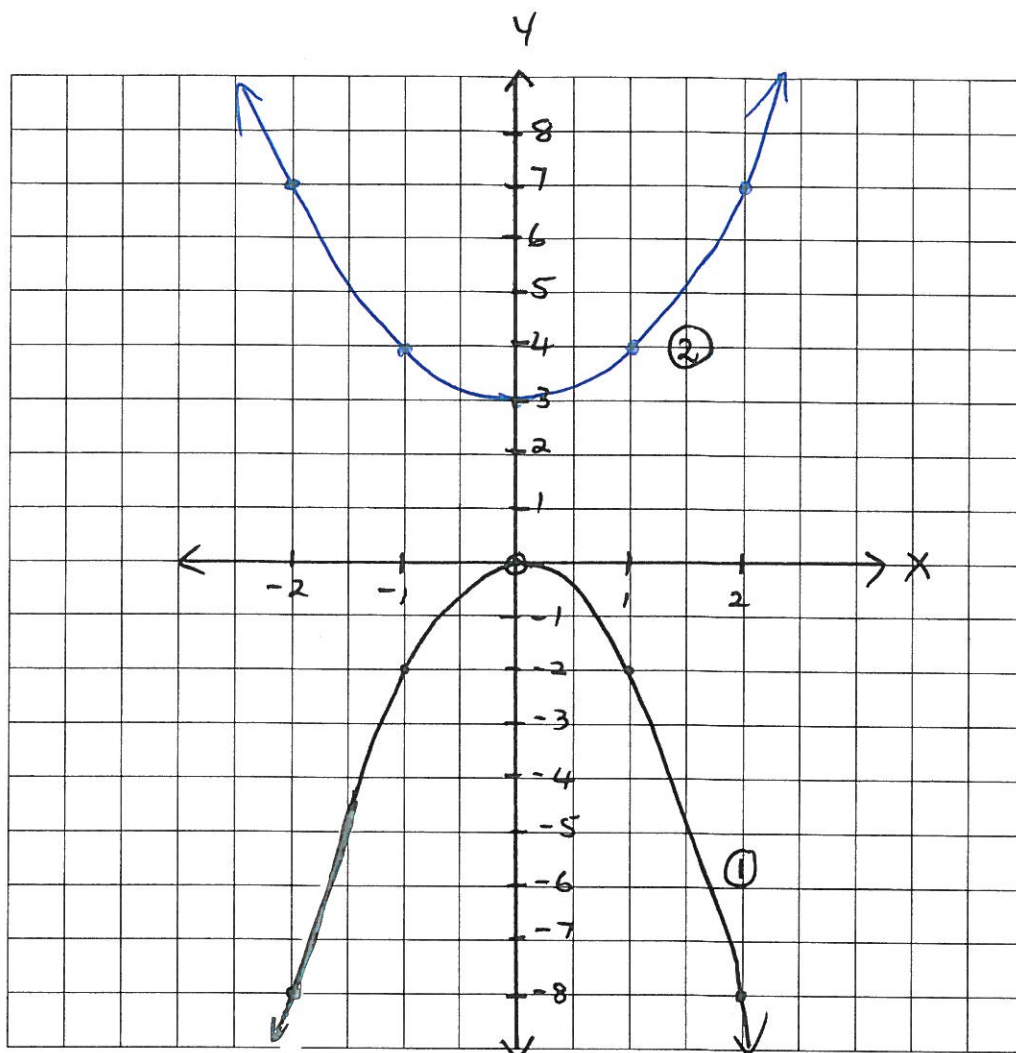
(c) $(0; 1)$

(d) Minimum of 1

(e) $(0; 1)$

(f) $x = 0$

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