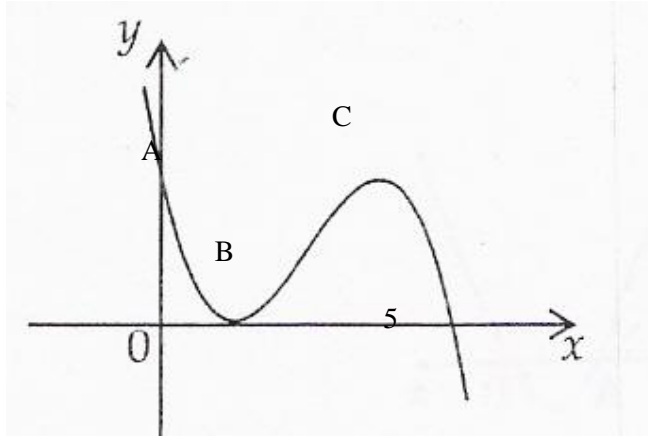




# Ross High School: Mathematics Department

## Higher Mathematics: Homework 12

1. The diagram below shows the graph of the function  $y = f(x)$ .



a) On separate axes, sketch the graphs of:

- $y = f(x) + 2$
- $y = f(x + 4)$
- $y = -f(x + 1)$
- $y = -2 - f(x)$
- $y = f^{-1}(x)$

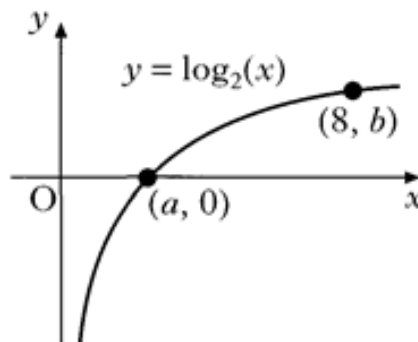
(7)

b) If you had the equation of the function  $f(x)$ , explain how you could find:

- Point A
- Point B
- Point C

(3)

2. The diagram below shows part of the graph of  $y = \log_2(x)$ .



- Find the values of  $a$  and  $b$ .
- State the function of the inverse of this graph.
- Sketch the graph of  $y = \log_2(x + 1) - 3$ .

(5)