

**Question 1**

**(5 marks)**

(a) Given that  $\log_8 x = 2$  and  $\log_2 y = 5$ , evaluate  $x - y$ .

(2 marks)

(b) Express  $y$  in terms of  $x$  given that  $\log_2 (x + y) + 2 = \log_2 (x - 2y)$ .

(3 marks)