

佛教大光慈航中學  
中四級數學科

姓名：\_\_\_\_\_ 分數：\_\_\_\_\_  
班別：\_\_\_\_\_ ( ) 日期：\_\_\_\_\_

第八課 對數

對數的性質

設  $a, b > 0, a, b \neq 1$  及  $x, y > 0$ 。

(a)  $\log_a a^x = x$

(b)  $\log_a 1 = 0$

(c)  $\log_a a = 1$

(d)  $\log_a xy = \log_a x + \log_a y$

(e)  $\log_a \frac{x}{y} = \log_a x - \log_a y$

(f)  $\log_a x^k = k \log_a x$  ( $k$  是任意實數)

(g)  $\log_a x = \frac{\log_b x}{\log_b a}$  (換底公式)

不用計算機，求下列各題的值。[第 1–4 題]

1.  $\log_4 8 + \log_4 2$

---

---

---

---

---

---

---

---

---

---

2.  $\log_{10} 4 - \log_{10} 40$

---

---

---

---

---

---

---

---

---

---

3.  $\log_2 3 \times \log_3 2$

---

---

---

---

---

---

---

---

---

---

4.  $\frac{\log 32}{\log 2}$

---

---

---

---

---

---

---

---

---

---

