

習題集 1 簡答

(對應 [張旭微積分](#) 微分篇重點一：導數與微分的概念)

1. $f'(x) = 2, f'(1) = 2.$

2. $f'(x) = 3x^2 + 3, f'(1) = 6.$

3. $f'(x) = \begin{cases} x & \text{if } x > 1 \\ 1 & \text{if } x \leq 1 \end{cases}, f'(1) = 1.$

4. $f'(x_0) + g'(x_0) = \frac{1}{2\sqrt{x_0}} + \frac{1}{3\sqrt[3]{x_0^2}}.$

5. $6a + 6b.$

6. 6.

7. $x = 1, x = 2.$

8. $x = 0.$

9. $f'(x) = 2n(2x+1)^{n-1}, f'(1) = 2n \cdot 3^{n-1}.$

10. $f'(x) = 2x \cos(x^2), f'(1) = 2 \cos(1).$

註 [丈哥](#)有拍攝偶數題的講解影片，有需要的同學可以連接到張旭老師YT頻道的[播放清單](#)觀看！