

### 103. Polar Coordinates

#### ◎ 單選題

1. The **slope** of the tangent line of the curve  $r = 2 + \sin\theta$  at  $\theta = \frac{\pi}{4}$  is

- (A)  $-1$ ;      (B)  $-1 - \frac{\sqrt{2}}{2}$ ;      (C)  $2$ ;      (D)  $-2 + \sqrt{2}$ .

Ans: B [104 學年度]

#### ◎ 填空題

1. Suppose that the equation of the **tangent line** to the polar curve  $r = 1 + \cos\theta$  at the point  $(r, \theta) = \left(\frac{1}{2}, \frac{2\pi}{3}\right)$  is  $ax + by + 1 = 0$ . Then the pair  $(a, b)$  is

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Ans: (4,0) [105 學年度]