Total points **5/5**

✓ Q1. One card is drawn from a pack of 52 cards. The probability that
it is a king or a spade is *

$$\frac{1}{26}$$

○ Option 1

$$\frac{3}{26}$$

○ Option 2

$$\frac{4}{13}$$

◉ Option 3 ✓

$$\frac{3}{13}$$

○ Option 4

✓ Q2. An urn contains 9 balls, two of which are red, three are blue and four black. Three balls are drawn at random. The probability that they are of the same colour is *

$$\frac{5}{84}$$

Option 1 ✓

$$\frac{3}{9}$$

Option 2

$$\frac{3}{7}$$

Option 3

$$\frac{7}{17}$$

Option 4

✓ Q3. Select the correct options *

Option 1 ✓

$$P\left(\overline{A} \cap B\right) = P(B) - P(A \cap B)$$

Option 2

$$P\left(A \cap \overline{B}\right) = P(A) + P(A \cap B)$$

Option 3 ✓

$$P\left(\overline{A} \cap \overline{B}\right) = 1 - P(A \cup B)$$

Option 4

$$P\left(\overline{A} \cup \overline{B}\right) = 1 - P(A \cup B)$$

✓ Q4. The probabilities of three mutually exclusive events A,B and C 1/1
are given by 2/3, 1/4 and 1/6 respectively. The statement *

○ is true

◉ is false ✓

○ nothing can be said

○ could be either