

$$\textcircled{1} \begin{array}{l} 4R \\ 2BB \\ \hline 6 \end{array} \quad P(B \text{ and } B) = \frac{18}{7} \cdot \frac{2}{62} = \frac{2}{14} = \frac{1}{7}$$

$$\textcircled{2} \begin{array}{l} 12V \\ 3C \end{array} \quad P(V \text{ and } V) = \frac{12}{5} \cdot \frac{1}{42} = \frac{1}{10}$$

$$\textcircled{3} \begin{array}{l} 2526B \\ 26R \end{array} \quad P(B \text{ and } R) = \frac{26}{252} \cdot \frac{26}{51} = \frac{26}{102} = \frac{13}{51}$$

$$\textcircled{4} \begin{array}{l} 13D \\ 13C \\ 13H \\ 13S \\ \hline 52 \end{array} \quad P(D \text{ and } D) = \frac{13}{1452} \cdot \frac{123}{51} = \frac{3}{51} = \frac{1}{17}$$

$$\textcircled{5} \begin{array}{l} 4A \\ 4K \\ 4J \\ 4Q \\ \hline 4 \text{ each kind} \\ 52 \text{ total} \end{array} \quad P(J \text{ and } Q) = \frac{4}{52} \cdot \frac{4}{51} = \frac{1}{13} \cdot \frac{4}{51} = \frac{4}{664} = \frac{1}{166}$$

$$\begin{array}{r} 51 \\ \times 13 \\ \hline 154 \\ 510 \\ \hline 664 \end{array}$$

$$\textcircled{6} \begin{array}{l} 15r \\ 10b \end{array} \quad P(r \text{ and } B) = \frac{15}{525} \cdot \frac{10^2}{24} = \frac{30}{120} = \frac{1}{4}$$

$$\begin{array}{r} 24 \\ \times 5 \\ \hline 120 \end{array}$$