1、

$$A = \begin{pmatrix} -1 & 3 \\ 8 & 5 \\ 6 & -4 \end{pmatrix}$$

$$B = \begin{pmatrix} 4 & 6 & -3 \\ 2 & 7 & 11 \end{pmatrix}$$

1a、 AB

$$\begin{pmatrix} -1 & 3 \\ 8 & 5 \\ 6 & -4 \end{pmatrix} \begin{pmatrix} 4 & 6 & -3 \\ 2 & 7 & 11 \end{pmatrix}$$

$\downarrow$

$$\begin{pmatrix} 4(-1)+2(3) & 6(-1)+7(3) & -3(-1)+11(3) \\ 4(8)+2(5) & 6(8)+7(5) & -3(8)+11(5) \\ 4(6)+2(-4) & 6(6)+7(-4) & -3(6)+11(-4) \end{pmatrix}$$
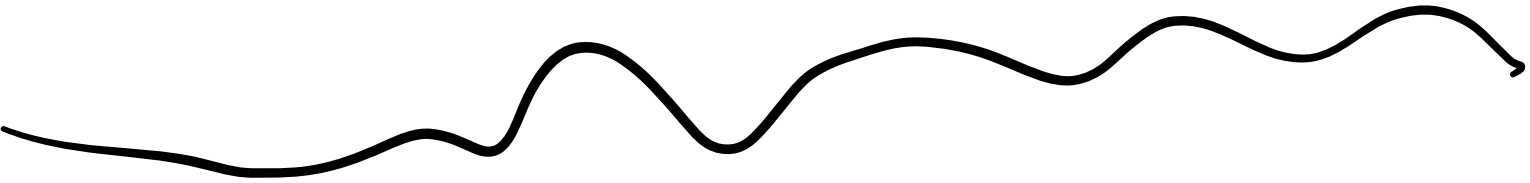
|

$$\begin{pmatrix} 6 & 15 & 36 \\ 42 & 83 & 31 \\ 16 & 8 & -62 \end{pmatrix}$$

16. BA

$$\begin{pmatrix} 4 & 6 & -3 \\ 2 & 7 & 11 \end{pmatrix} \begin{pmatrix} -1 & 3 \\ 8 & 5 \\ 6 & -4 \end{pmatrix}$$

$$\begin{pmatrix} -1(4)+8(6)+6(-3) & 3(4)+5(6)+-4(-3) \\ -1(2)+8(7)+6(11) & 3(2)+5(7)+-4(11) \end{pmatrix}$$

$$\begin{pmatrix} 26 & 54 \\ 120 & -3 \end{pmatrix}$$

~~~~~~

2

\# of all possible events = $6 \cdot 6 = 36$

\# of all Favorable events = $5 \cdot 5 = 25$

$$\frac{25}{36} \approx 0.6944 = 64.44\%$$