情報数学 **III** 第 **7** 回小テスト解答

1

(1) 4

(2) $\dfrac{X_1}{X_0} = x_1$

(3) $\dfrac{X_2}{X_0} = x_2$

(4) $\dfrac{X_3}{X_0} = x_3$

(5) $\begin{pmatrix} -\frac{1}{2} \\ \frac{3}{2} \\ 0 \end{pmatrix}$

(6) $\dfrac{3}{2}$

(7) $-\dfrac{9}{2}$

(8) 0

2

(1) $\vec{n} = \begin{pmatrix} 1 \\ -1 \\ 2 \end{pmatrix}$

(2) 3

(3) $\vec{v} = \begin{pmatrix} \frac{1}{2} \\ -\frac{1}{2} \\ 1 \end{pmatrix}$

(4) $\vec{p}_1 = \begin{pmatrix} \frac{1}{\sqrt{3}} \\ -\frac{1}{\sqrt{3}} \\ -\frac{1}{\sqrt{3}} \end{pmatrix}$, $\vec{p}_3 = \begin{pmatrix} \frac{1}{\sqrt{6}} \\ -\frac{1}{\sqrt{6}} \\ \frac{2}{\sqrt{6}} \end{pmatrix}$ （これらの (-1) 倍でも可）

(5) $\begin{pmatrix} 0 \\ \frac{3}{\sqrt{2}} \\ 0 \end{pmatrix}$