

代幾 I 計算演習 [問題] (2008/07/03)

問. 次の行列 A の対角成分 (Trace:トレース) $\text{tr}A$ を求めよ

Q.1

$$A = \begin{pmatrix} 2 & 6 & -8 & 2 \\ -9 & 5 & 9 & 0 \\ 4 & 7 & 6 & -1 \\ 1 & -5 & 4 & -7 \end{pmatrix}$$

Q.6

$$A = \begin{pmatrix} -8 & 0 & -2 & -9 \\ 6 & -8 & 2 & 0 \\ -1 & 5 & 3 & 7 \\ 0 & -9 & 5 & -4 \end{pmatrix}$$

Q.2

$$A = \begin{pmatrix} 6 & -1 & 1 & -6 & 2 & -4 \\ 9 & 5 & -4 & 0 & 7 & -2 \\ -1 & 6 & 7 & -1 & 7 & -3 \\ -5 & -1 & 7 & -1 & -4 & -8 \\ -3 & -1 & -5 & 8 & -1 & -4 \\ -7 & -1 & -1 & 3 & -5 & 4 \end{pmatrix}$$

Q.7

$$A = \begin{pmatrix} 3 & 2 & 0 & 9 & 5 & 3 \\ 4 & 1 & 1 & 5 & -5 & 2 \\ 7 & 0 & -7 & 0 & -7 & 4 \\ 0 & -7 & 6 & 2 & 5 & -4 \\ -6 & 8 & -5 & -1 & 9 & -1 \\ 4 & 8 & -4 & 7 & 1 & -3 \end{pmatrix}$$

Q.3

$$A = \begin{pmatrix} -4 & -2 & 0 & -2 & 4 \\ -9 & -1 & 2 & -2 & 7 \\ 4 & -2 & 1 & -2 & 7 \\ 0 & -6 & -1 & 8 & 3 \\ 1 & 8 & -8 & 7 & 4 \end{pmatrix}$$

Q.8

$$A = \begin{pmatrix} -5 & 9 & 1 & -9 & 6 \\ -7 & 9 & 2 & 4 & 5 \\ -8 & 5 & 0 & -9 & 6 \\ -2 & 2 & 0 & 4 & -2 \\ -3 & -3 & 1 & 5 & -7 \end{pmatrix}$$

Q.4

$$A = \begin{pmatrix} -9 & -9 & 3 & -1 & 7 \\ -7 & -9 & 6 & 4 & 1 \\ 1 & -3 & 5 & 9 & 4 \\ 3 & -3 & -7 & 0 & 4 \\ 1 & 7 & -4 & -1 & 1 \end{pmatrix}$$

Q.9

$$A = \begin{pmatrix} -4 & 2 & 3 & -9 & -4 \\ -6 & -5 & 3 & 9 & 6 \\ -5 & 8 & 3 & 2 & 0 \\ 9 & 3 & 5 & 8 & -1 \\ 4 & -8 & 0 & 3 & 0 \end{pmatrix}$$

Q.5

$$A = \begin{pmatrix} 6 & -8 & 8 \\ 8 & 2 & -2 \\ -3 & 1 & -5 \end{pmatrix}$$

Q.10

$$A = \begin{pmatrix} 3 & -7 & 6 & 0 \\ -7 & -4 & -7 & 1 \\ -8 & -8 & 0 & -6 \\ 3 & -8 & 0 & -9 \end{pmatrix}$$

代幾 I 計算演習 [解答] (2008/07/03)

A.1

6

A.2

20

A.3

8

A.4

-12

A.5

3

A.6

-17

A.7

5

A.8

1

A.9

2

A.10

-10