

代幾 I 計算演習 [問題] (2007/07/12)

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

$$A = \begin{pmatrix} 0 & 5 & 0 \\ -8 & -5 & 0 \\ -8 & 1 & 0 \end{pmatrix}$$

Q.2

$$A = \begin{pmatrix} 2 & 5 & -7 \\ 9 & 2 & 3 \\ 9 & 2 & 2 \end{pmatrix}$$

Q.3

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

Q.4

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

Q.5

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

Q.6

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

Q.7

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

Q.8

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

Q.9

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

Q.10

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

Q.11

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

Q.12

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

Q.13

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

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A.1

-5

A.2

6

A.3

7

A.4

-8

A.5

21

A.6

2

A.7

0

A.8

-33

A.9

3

A.10

-23

A.11

-2

A.12

6

A.13

5