姓名 Name : _____ 學號 Student ID # : _____

Quiz 3   MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -4 & 0 & 0 \\ 20 & 2 & -1 \\ -12 & 2 & 5 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 1   Indicating your answer by **underlining it** or **circling it**.   check code

Compute the **check code** and fill it into the **box on the right**.

姓名 Name : _____   學號 Student ID # : _____
Quiz 3   MATH 104 / GEAI 1209: Linear Algebra II

Let
$$A = \begin{bmatrix} 5 & -10 & -20 \\ 0 & 15 & 20 \\ 0 & -10 & -15 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 2   Indicating your answer by **underlining it** or **circling it**.   check code
Compute the **check code** and fill it into the **box on the right**.

姓名 Name : _____ 學號 Student ID # : _____
Quiz 3 MATH 104 / GEAI 1209: Linear Algebra II

Let
$$A = \begin{bmatrix} -11 & -12 & 24 \\ 18 & 25 & -54 \\ 5 & 8 & -18 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 3 Indicating your answer by **underlining it** or **circling it**.
Compute the **check code** and fill it into the **box on the right**.

check code

Let
$$A = \begin{bmatrix} 5 & -10 & 8 \\ 4 & -8 & 4 \\ -3 & 4 & -6 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 4

Indicating your answer by **underlining it** or **circling it**.
Compute the **check code** and fill it into the **box on the right**.

check code

姓名 Name : _____   學號 Student ID # : _____
Quiz 3   MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -6 & -9 & -18 \\ 4 & 7 & 8 \\ 2 & 2 & 7 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 5   Indicating your answer by **underlining it** or **circling it**.   check code
                    Compute the **check code** and fill it into the **box on the right**.

Let

$$A = \begin{bmatrix} 6 & 1 & 7 \\ 1 & 2 & 1 \\ -1 & -3 & -2 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S$ mod 10

Solution.

AbsSumEigs 6

Indicating your answer by **underlining it** or **circling it**.
Compute the **check code** and fill it into the **box on the right**.

check code

Let

$$A = \begin{bmatrix} -10 & 0 & 12 \\ -16 & -4 & 28 \\ -8 & 0 & 10 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 7

Indicating your answer by **underlining it** or **circling it**.
Compute the **check code** and fill it into the **box on the right**.

check code

姓名 Name : _____ 學號 Student ID # : _____

Quiz 3 MATH 104 / GEAI 1209: Linear Algebra II

Let
$$A = \begin{bmatrix} -16 & 42 & 48 \\ -6 & 17 & 24 \\ -1 & 2 & -3 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 8 Indicating your answer by **underlining it** or **circling it**. check code

Compute the **check code** and fill it into the **box on the right**.

姓名 Name : _____   學號 Student ID # : _____
Quiz 3   MATH 104 / GEAI 1209: Linear Algebra II

Let
$$A = \begin{bmatrix} -13 & 30 & 24 \\ -6 & 14 & 12 \\ 4 & -10 & -8 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 9

Indicating your answer by **underlining it** or **circling it**.
Compute the **check code** and fill it into the **box on the right**.

check code

姓名 Name : _____ 學號 Student ID # : _____
Quiz 3   MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -7 & -12 & -12 \\ 0 & 1 & 0 \\ 4 & 6 & 7 \end{bmatrix}.$$

Suppose the eigenvalues of A are $\lambda_1, \ldots, \lambda_3$. Find the value of $S = \sum_{i=1}^{3} |\lambda_i|$, where $|\cdot|$ is the absolute value.

Check code $= S \bmod 10$

Solution.

AbsSumEigs 10   Indicating your answer by **underlining it** or **circling it**.   check code

Compute the **check code** and fill it into the **box on the right**.