

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -3 & 2 & 2 & -2 \\ 0 & 0 & 1 & 2 \\ -3 & -3 & 2 & 0 \\ 2 & -3 & 0 & 2 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is 40.

Check code = $\det(A) \bmod 10 = 0$.



FindDet 1

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

check code

0

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} 3 & 3 & -3 & -3 \\ 2 & 2 & 1 & -1 \\ 1 & 1 & 1 & -2 \\ 0 & -1 & 2 & 3 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is 15.

Check code = $\det(A) \bmod 10 = 5$.



FindDet 2

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

check code

5

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -2 & 0 & -1 & 1 \\ 1 & -3 & -3 & 2 \\ -2 & -2 & 3 & 0 \\ 2 & 0 & 1 & -2 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -38.

Check code = $\det(A) \bmod 10 = 2$.



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

check code
2

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -2 & -3 & -1 & -2 \\ -3 & -1 & 3 & 2 \\ 2 & -2 & 0 & -2 \\ -2 & -3 & -2 & 3 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

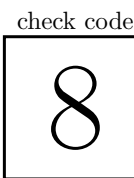
Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -212.

Check code = $\det(A) \bmod 10 = 8$.



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



姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} 1 & 2 & 2 & 3 \\ 2 & 3 & -3 & 0 \\ 3 & 1 & 3 & -3 \\ 0 & -2 & 0 & 1 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -164.

Check code = $\det(A) \bmod 10 = 6$.



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

check code

6

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} 2 & 2 & 0 & -2 \\ -3 & 1 & 0 & 2 \\ -1 & 2 & -2 & 2 \\ 2 & -1 & 0 & 1 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -36.

Check code = $\det(A) \bmod 10 = 4$.



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

check code

4

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -1 & -2 & 1 & -3 \\ 0 & -1 & -3 & 0 \\ -3 & 0 & -3 & -3 \\ -1 & 2 & -3 & -2 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is 72.

Check code = $\det(A) \bmod 10 = 2$.



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

check code

2

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} -2 & 3 & -3 & 1 \\ -3 & -2 & 3 & -2 \\ 1 & 0 & 0 & 0 \\ -2 & 2 & -3 & -2 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

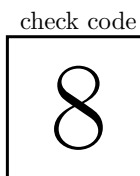
Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -12.

Check code = $\det(A) \bmod 10 = 8$.



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



姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} 0 & -1 & -3 & 3 \\ -3 & 0 & 3 & -3 \\ 0 & 1 & -3 & -1 \\ 1 & 0 & 2 & -2 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -36.

Check code = $\det(A) \bmod 10 = 4$.



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

check code
4

姓名 Name : _____ 學號 Student ID # : _____

Quiz 2

MATH 104 / GEAI 1209: Linear Algebra II

Let

$$A = \begin{bmatrix} 0 & 0 & 1 & -2 \\ 2 & 2 & 1 & -2 \\ 0 & -1 & -2 & 3 \\ 3 & -3 & 3 & 1 \end{bmatrix}.$$

Find $\det(A)$.

Check code = $\det(A) \bmod 10$

Solution.

You may use Laplace's expansion or the permutation expansion to compute the determinant. The determinant of A is -26.

Check code = $\det(A) \bmod 10 = 4$.

FindDet 10



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

check code

