姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-33}$.

Check code = $\det(A) \bmod 10 = 7$.

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

7

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-72}$.

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

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

8

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{11}$.

Check code = $\det(A) \bmod 10 = 1$.

FindDet 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

1

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-187}$.

Check code = $\det(A) \bmod 10 = 3$.

FindDet 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

3

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{28}$.

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

FindDet 5

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

check code

8

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{165}$.

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

FindDet 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

5

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-94}$.

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

FindDet 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

6

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{56}$.

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

FindDet 8

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 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-1}$.

Check code = $\det(A) \bmod 10 = 9$.

FindDet 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

9

姓名 Name : _____ 學號 Student ID # : _____

Quiz 1 MATH 104: Linear Algebra II

Let

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

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 $\boxed{-36}$.

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

4