

Determining whether we can actually *solve* a system  $Ax = b$  is the first step in finding solutions. Read about the invertibility ([https://en.wikipedia.org/wiki/Invertible\\_matrix](https://en.wikipedia.org/wiki/Invertible_matrix)) of a matrix.

1分

Then consider an  $n \times n$  matrix  $A$ , an  $n \times 1$  vector  $b$ , and the linear system

$$Ax = b$$

When does a unique solution  $x$  exist?

选项\*

- ☐ When  $b$  is the the column space of  $A$ .
- ☐ When the diagonal is positive.
- ☐ Always.
- ☐ When it is full rank.

参考答案: 'When it is full rank.'