MATLAB - INVERSE OF A MATRIX

The inverse of a matrix A is denoted by A^{-1} such that the following relationship holds —

```
AA⁻¹ = A⁻¹A = 1
```

The inverse of a matrix does not always exist. If the determinant of the matrix is zero, then the inverse does not exist and the matrix is singular.

Inverse of a matrix in MATLAB is calculated using the **inv** function. Inverse of a matrix A is given by $inv A$.

Example

Create a script file and type the following code —

```
a = [ 1 2 3; 2 3 4; 1 2 5]
inv(a)
```

When you run the file, it displays the following result —

```
a =
     1      2      3
     2      3      4
     1      2      5
ans =
   -3.5000     2.0000     0.5000
    3.0000    -1.0000    -1.0000
   -0.5000         0     0.5000
```

Loading [MathJax]/jax/output/HTML-CSS/fonts/TeX/fontdata.js