3.
Ay=b
若A可逆，等號兩邊同乘A^(–1)：
=> A^(–1) A y = A^(–1) b
=> y = A^(–1) b
題目中 M = inv(A) = A^(–1)，則：
=> y = M b

MATLAB演示：

```
>> A=round(10*rand(7));
>> b=round(10*rand(7,1));
```

(1) 先算 det(A) 看 A 是否可逆： A 可逆

```
>> det(A)

ans =

  -4.9313e+04
```

(2) 算M

```
>> M=inv(A)

M =

   -0.3150    1.3165   -0.9743   -0.8537   -0.0580    0.0415    0.8488
    0.2707    0.1163   -0.0445   -0.1595    0.0017    0.0498   -0.1348
   -0.1230   -0.5834    0.3681    0.5101    0.0057   -0.1090   -0.0691
   -0.1018    0.9356   -0.7561   -0.8595   -0.0612    0.2466    0.6025
    0.0634    1.0116   -0.6778   -0.9761    0.0343    0.1733    0.4678
    0.0276   -1.6388    1.1147    1.4363    0.1042   -0.2144   -0.8401
   -0.0573   -0.4879    0.4592    0.4812   -0.0105   -0.0834   -0.3002
```

(3) 算出 y = M * b

```
>> y=M*b

y =

   12.3576
    1.2634
   -5.4126
   10.3076
   10.8908
  -16.1461
   -5.6623
```