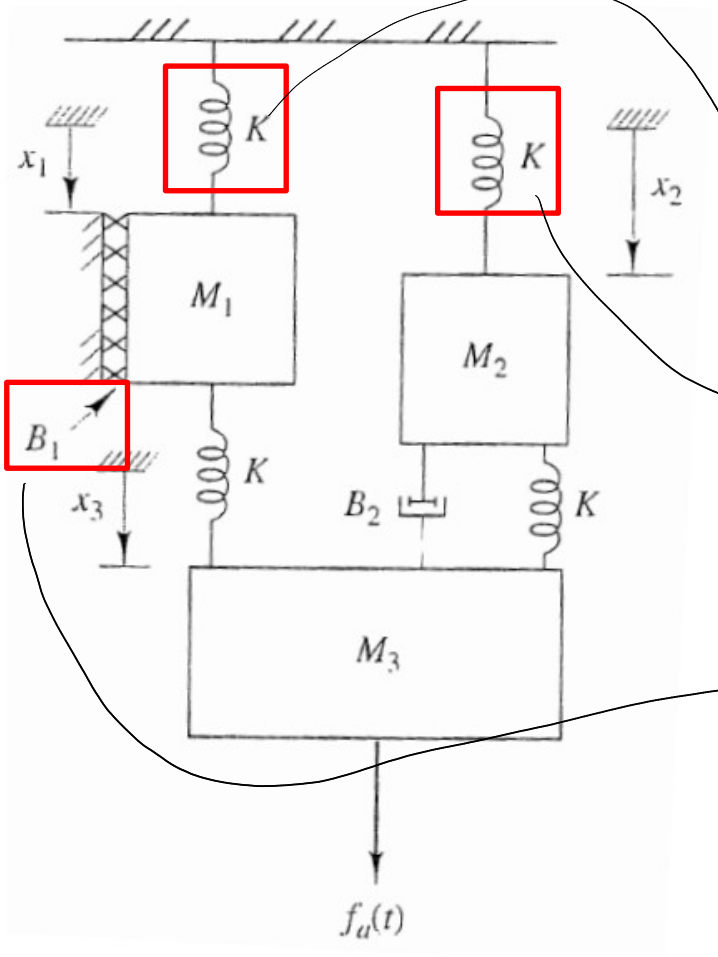
Example:



- There are 3 masses, thus, the connection matrix are 3-by-3 matrices.

	M1	M2	M3
M1	K	0	0
M2	0	K	0
M3	K	K	0

For spring

	M1	M2	M3
M1	B1	0	0
M2	0	0	0
M3	0	B2	0

For damper

- **The connection matrix must be a LOWER TRIANGULAR matrix.**
- Diagonal elements describe connection with static world (see red boxes).
- Other element describe connection between two masses.

- B and K are n-by-n matrices (blue texts)
- The masses (M) and external forces acting on each mass are written in 1D-vectors (red texts)

#clear used variables

K:='K':

M:='M':

#setup matrix K and B

matK:=<K,0,0;0,K,0;K,K,0>:

matB:=<B__1,0,0;0,0,0;0,B__2,0>:

matM:=<M__1,M__2,M__3>:

matF:=<M__1*g(t),M__2*g(t),M__3*g(t)+f__a(t)>:

#write down the equations

eq:=mass_spring_damper(3, matM, matK, matB, matF):