M2 CQ1. A 10 m long wing is represented by a cantilever beam, carrying a uniform load of 10 kN/M length. What is the correct equipollent force system at the root of the wing?

1. $F=100\text{kN}$
   $M=500\text{kNm}$

2. $F=100\text{kN}$
   $M=500\text{kNm}$

3. $F=100\text{kN}$

4. $M=500\text{kNm}$

5. Some other answer

6. Do not know/understand
M2 CQ 2. A particle is loaded by forces of $\begin{pmatrix} 1 \\ 2 \\ 0 \end{pmatrix}$ N and $\begin{pmatrix} 2 \\ 0 \\ 0 \end{pmatrix}$ N. If the particle is to be maintained in static equilibrium which of the following systems of forces and moments must be applied to the particle?

1. A force of $\begin{pmatrix} -3 \\ -2 \\ -3 \end{pmatrix}$ N
2. A force of $\begin{pmatrix} 3 \\ 2 \\ 3 \end{pmatrix}$ N
3. A force of 4.7 N
4. A force of $\begin{pmatrix} -3 \\ -2 \\ -3 \end{pmatrix}$ N and a moment of $\begin{pmatrix} 6 \\ -3 \\ -4 \end{pmatrix}$ Nm
5. Insufficient information is provided
6. I do not know/understand
M2 CQ3. A body is loaded by a force of \(-2\) N at position \((1, 0)\) m and a force of \((0, 1)\) N at \((0, 1)\) m. If the body is to be maintained in static equilibrium which of the following systems of forces and moments must be applied at the origin?

1. A force of \((2, 1)\) N
2. A force of \((-2, -1)\) N
3. A force of 3 N and a moment of 2.2 Nm
4. A force of \((-2, -1)\) N and a moment of \((0, -1)\) Nm
5. A force of \((2, 1)\) N and a moment of \((1, 2)\) Nm
6. Some other answer
7. I do not know /understand