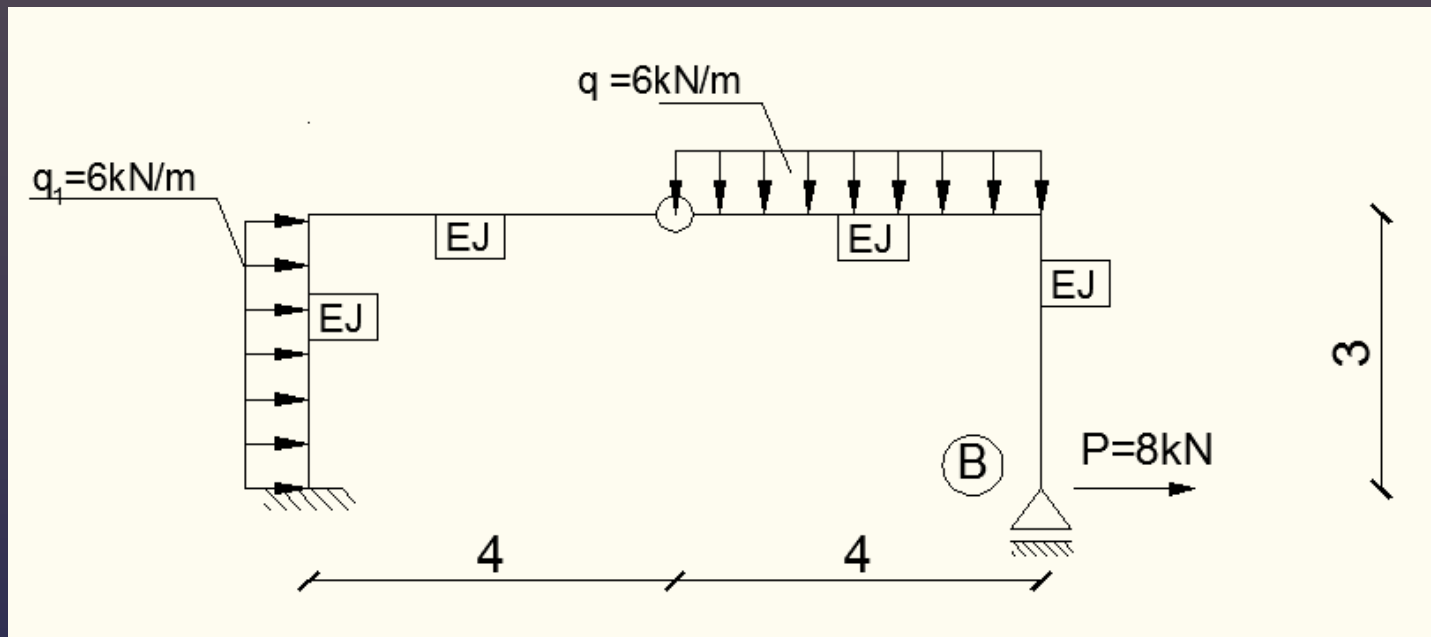
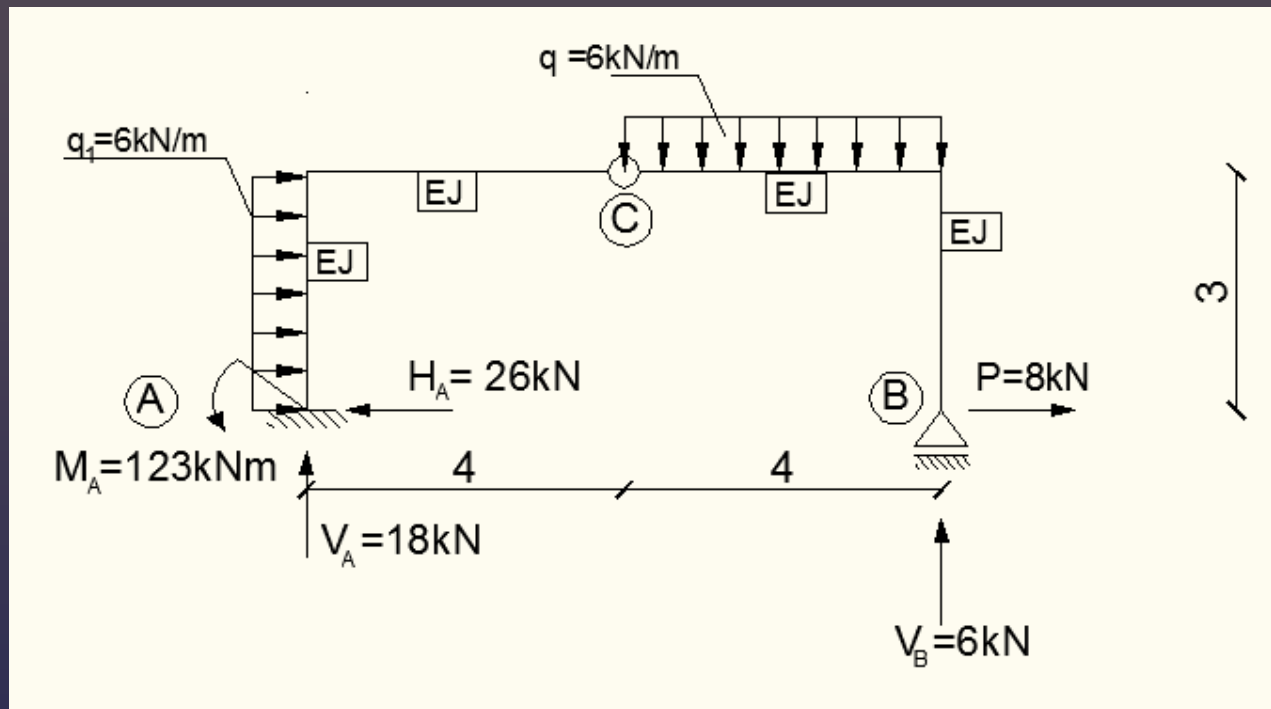


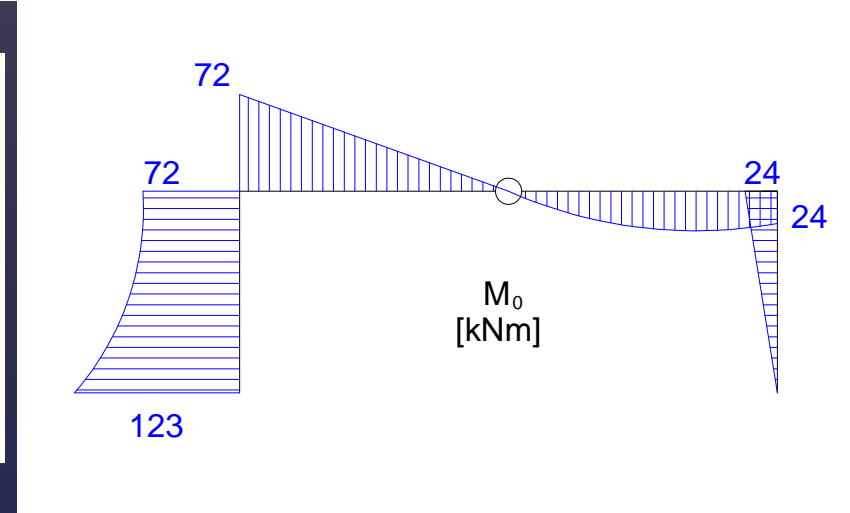
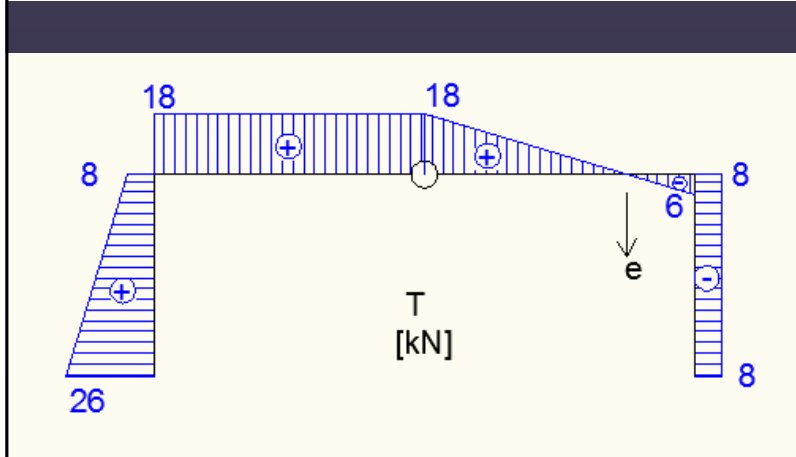
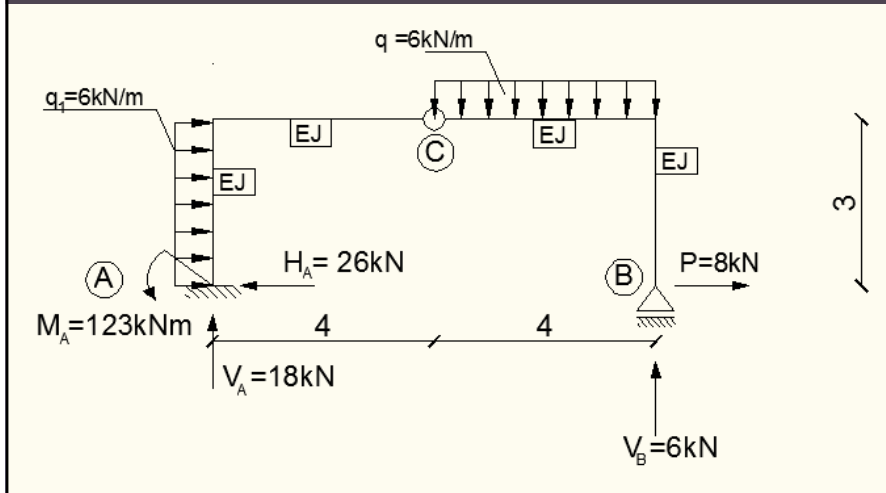
Zadanie 7. Wyznacz przemieszczenie poziome podpory B.



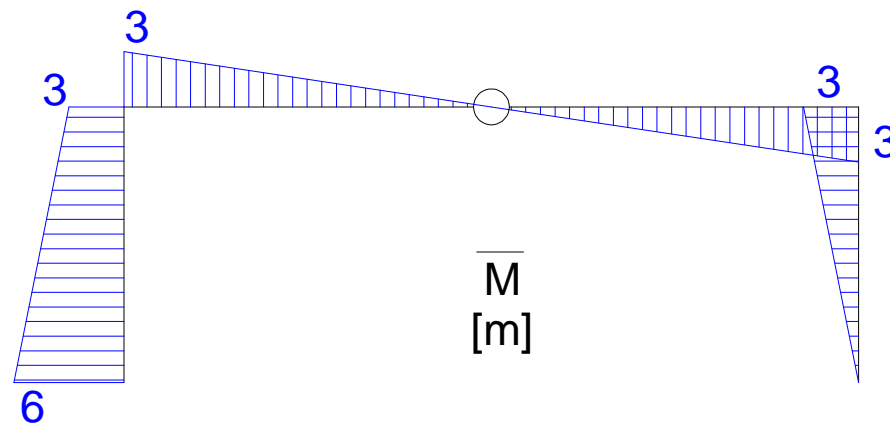
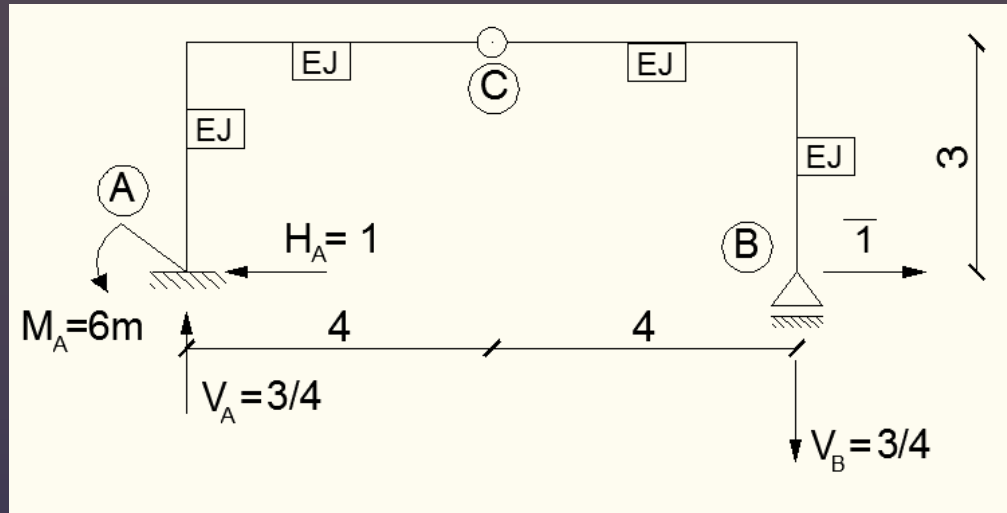
Wyznaczenie reakcji podporowych



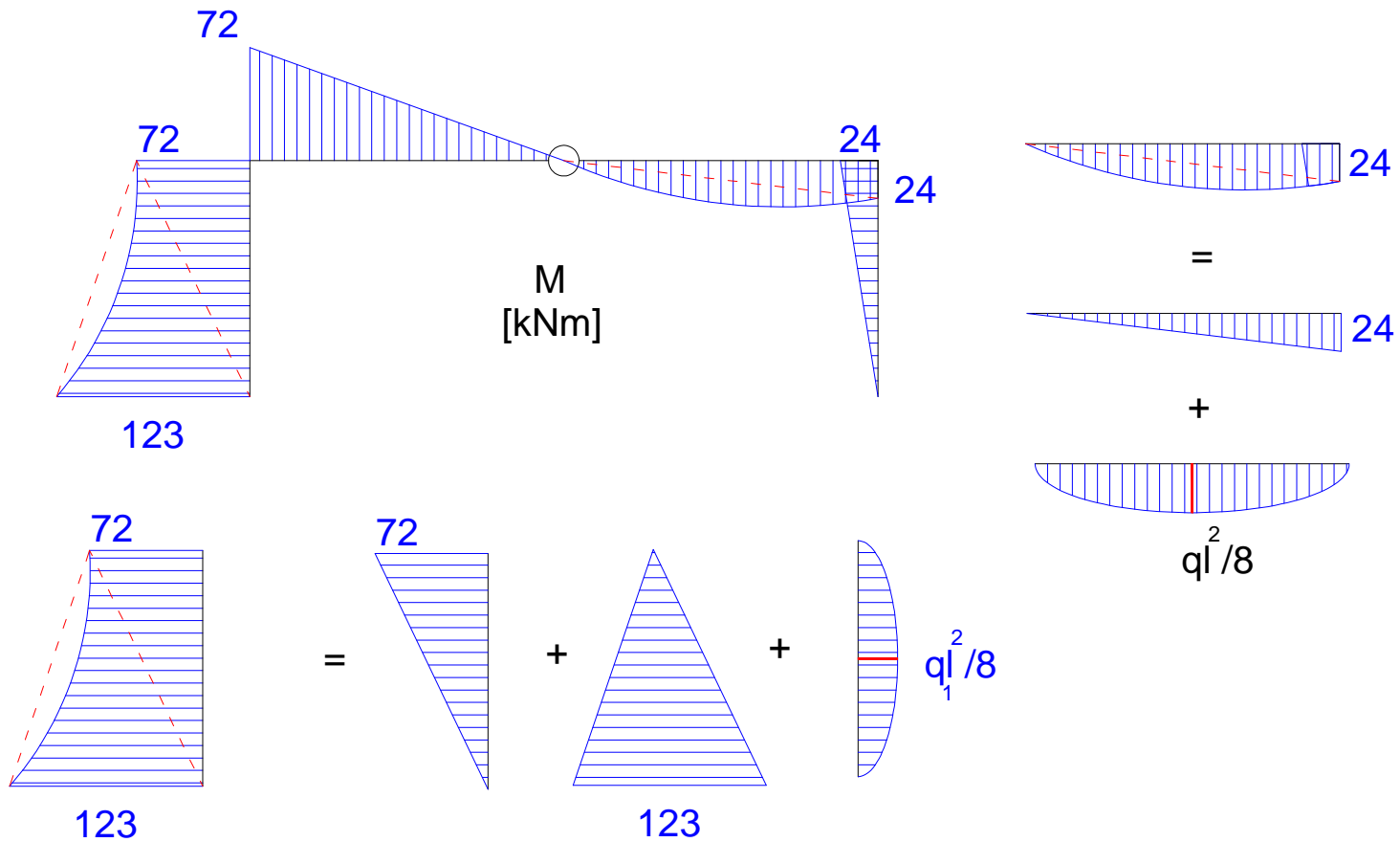
Wykresy sił wewnętrznych



Wykres momentów od obciążenia wirtualnego



Podział wykresów do całkowania



Wyznaczenie przemieszczenia

$$\begin{aligned}
 u_B &= \frac{1}{EJ} \frac{1}{2} \cdot 24 \cdot 3 \cdot \frac{2}{3} \cdot 3 \\
 &+ \frac{1}{EJ} \frac{1}{2} \cdot 24 \cdot 4 \cdot \frac{2}{3} \cdot 3 \\
 &+ \frac{1}{EJ} \frac{2}{3} \cdot \frac{6 \cdot 4^2}{8} \cdot 4 \cdot \frac{1}{2} \cdot 3 \\
 &+ \frac{1}{EJ} \frac{1}{2} \cdot 72 \cdot 4 \cdot \frac{2}{3} \cdot 3 \\
 &+ \frac{1}{EJ} \frac{1}{2} \cdot 72 \cdot 3 \cdot \left(\frac{2}{3} \cdot 3 + \frac{1}{3} \cdot 6 \right) \\
 &+ \frac{1}{EJ} \frac{1}{2} \cdot 123 \cdot 3 \cdot \left(\frac{2}{3} \cdot 6 + \frac{1}{3} \cdot 3 \right) \\
 &- \frac{1}{EJ} \frac{2}{3} \cdot \frac{6 \cdot 3^2}{8} \cdot 3 \cdot \left(\frac{1}{2} \cdot 3 + \frac{1}{2} \cdot 6 \right) \\
 &= \frac{1797,75}{EJ}
 \end{aligned}$$

