

$P = 100 \text{ kN}$   
 $q = 24 \text{ kN/m}$

$$\overline{M}_{42} = \frac{100 \cdot 5}{8} = 62,5 \text{ kNm}$$

$$\overline{M}_{24} = -\frac{100 \cdot 5}{8} = -62,5 \text{ kNm}$$

$$\overline{M}_{45} = \frac{24 \cdot 5^2}{12} = 50 \text{ kNm}$$

$$\overline{M}_{54} = -50 \text{ kNm}$$

$$k_{12} = k_{34} = k_{45} = k_{56} = 8k$$

$$k_{24} = k_{47} = k_{58} = k$$

$$k_2 = \frac{3}{4}k_{12} + k_{24} = \frac{3}{4} \cdot 8k + k = 7k$$

$$\mu_{21} = \frac{\frac{3}{4}k_{12}}{k_2} = \frac{6k}{7k} = \frac{6}{7}$$

$$\mu_{24} = \frac{k_{24}}{k_2} = \frac{1}{7}$$

$$k_4 = k_{24} + k_{34} + k_{45} + \frac{3}{4}k_{47} = k + 8k + 8k + \frac{3}{4}k = \frac{71}{4}k$$

$$\mu_{42} = \frac{k}{\frac{71}{4}k} = \frac{4}{71}$$

$$\mu_{43} = \frac{8k}{\frac{71}{4}k} = \frac{32}{71}$$

$$\mu_{45} = \frac{32}{71}$$

$$\mu_{47} = \frac{\frac{3}{4}k}{\frac{71}{4}k} = \frac{3}{71}$$

$$k_5 = k_{45} + k_{58} + \frac{3}{4}k_{56} = 8k + k + \frac{3}{4} \cdot 8k = 15k$$

$$\mu_{54} = \frac{8k}{15k} = \frac{8}{15}$$

$$\mu_{58} = \frac{1}{15}$$

$$\mu_{56} = \frac{6k}{15k} = \frac{6}{15}$$

④

-112,5

$-112,5 \cdot \frac{32}{71} = -50,7$

$\cdot \frac{4}{71} = -6,3$

$\cdot \frac{3}{71} = \underline{\underline{-4,8}}$

②

0,7

0,0052

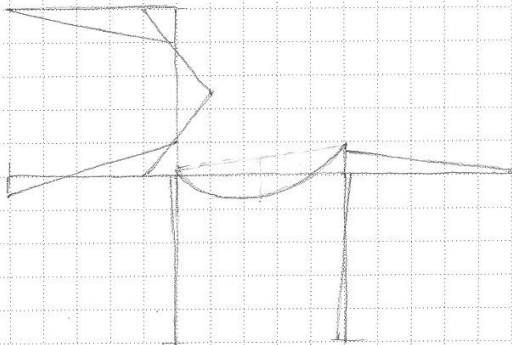
⑤

75,4

$\cdot \frac{8}{15} = 40,2$

$\cdot \frac{6}{15} = 30,2$

$\cdot \frac{1}{15} = \underline{\underline{5,0}}$



②

65,7

$\cdot \frac{1}{7} = 9,4$

$\cdot \frac{6}{7} = \underline{\underline{56,3}}$

④

$20,1 + 4,7 = 24,8$

-24,8

$\cdot \frac{32}{71} = -11,2$

$\cdot \frac{4}{71} = -1,4$

$\cdot \frac{3}{71} = \underline{\underline{-1,0}}$

⑤

5,6

$\cdot \frac{8}{15} = 3,0$

$\cdot \frac{6}{15} = 2,2$

$\cdot \frac{1}{15} = 0,4$

④

-1,5

$\cdot \frac{32}{71} = -0,7$

$\cdot \frac{4}{71} = -0,1$

$\cdot \frac{3}{71} = -0,1 \Rightarrow 0$

