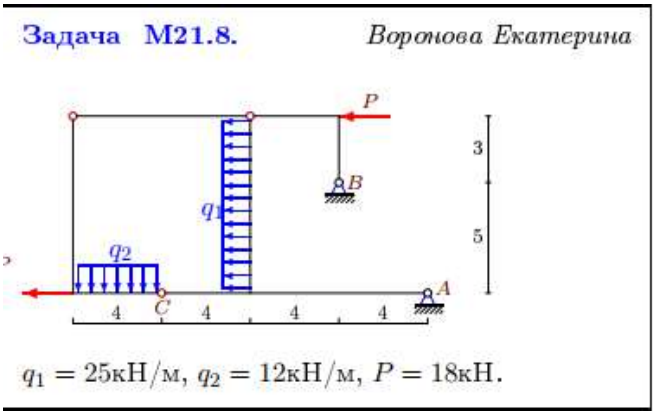
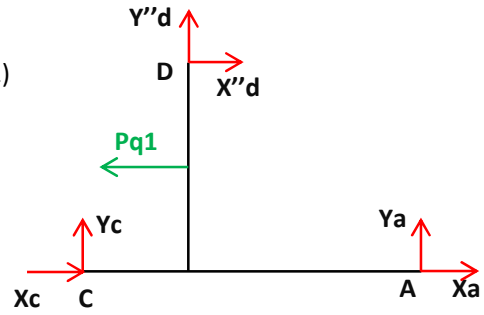
Pq1 = q1*8 = 200 кН

Pq2 = q2*4 = 48кН



1)

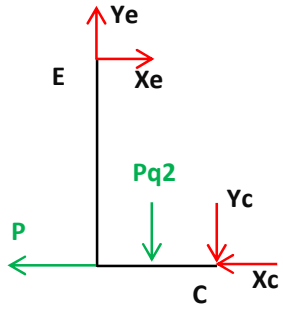


∑Xi = Xa+X''d+Xc-Pq1 = 0

∑Yi = Ya+Y''d+Yc = 0

∑Ma = -Yc*12 –X''d*8 –Y''d*8 + Pq1*4 = 0

2)

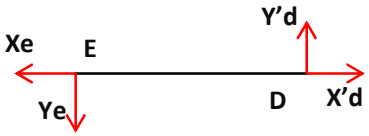


∑Xi = Xe - Xc-P = 0

∑Yi = Ye – Yc – Pq2 = 0

∑Mc = -Xe*8 – Ye*4 + Pq2*2 = 0

3)

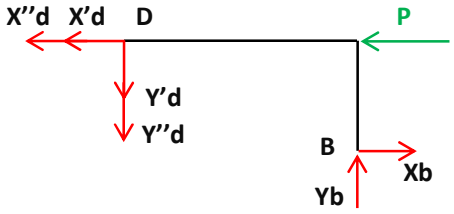


∑Xi = X'd - Xe = 0

∑Yi = Y'd - Ye= 0

∑Me = Y'd*8 = 0

4)



∑Xi = Xb - X'd - X''d - P = 0

∑Yi = Yb – Y'd – Y''d= 0

∑Md = Yb*4 + Xb*3 = 0

Решив систему из вышеуказанных уравнений, получим:

Xa = -572; Xb = 808; Xe = 12; Xc = -6; X'd = 12; X''d = 778;

Ya = 654; Yb = -606; Ye = 0; Yc = -48; Y'd = 0; Y''d = -604.

Для проверки составим сумму моментов для всей системы относительно точки E:

∑Me = Xa*8 + Ya*16 + Xb*3 +Yb*12 – Pq1*4 – Pq2*2 – P*8