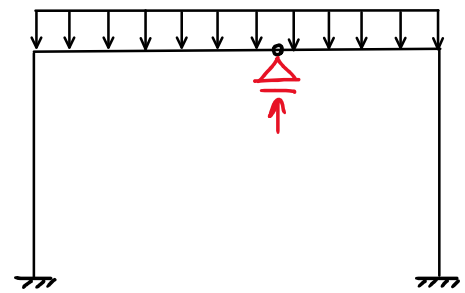
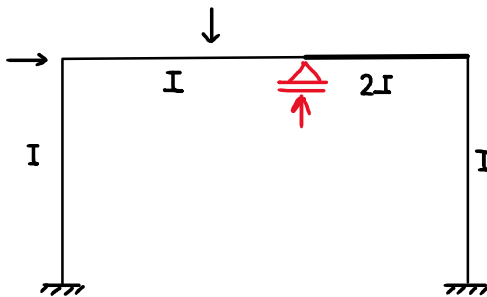
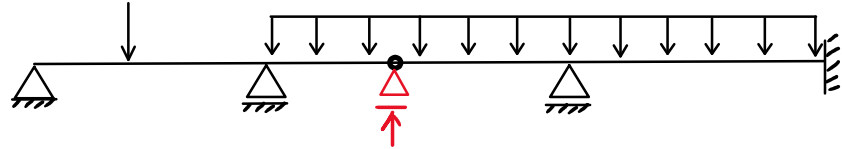
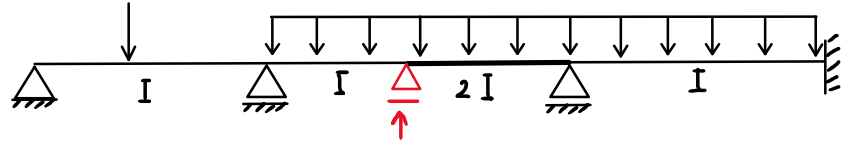


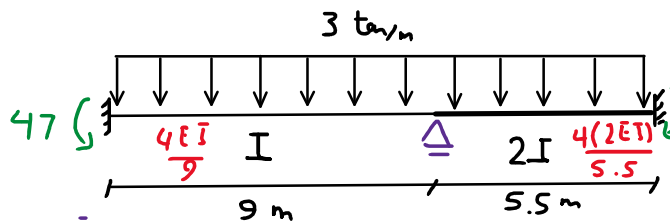
نقطه
نقطه +



مثال: لنگرهای انتهای اعضا را بدست آورید.

$$\frac{3 \times 9^2}{12} = 20.25 \text{ t.m}$$

$$\frac{3 \times 5.5^2}{12} = 7.56 \text{ t.m}$$

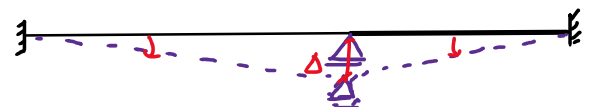
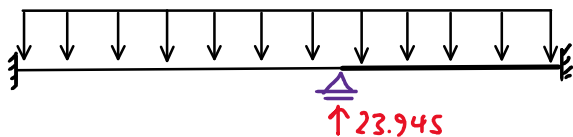


$$\frac{-6EI\Delta}{5.5'} = -0.074 \frac{100}{EI\Delta}$$

$$\frac{6(2EI)\Delta}{5.5'} = 0.397 EI\Delta$$

نقطه w

نقطه ه

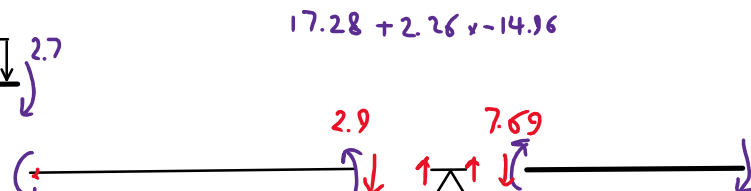
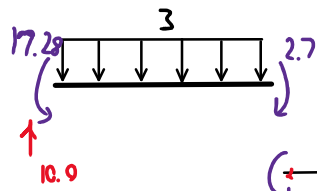
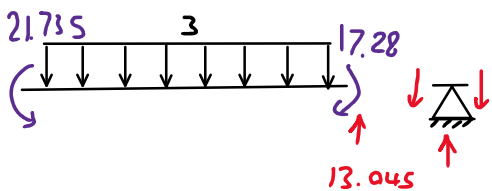


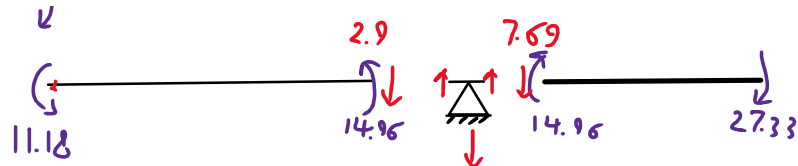
	0.234	0.766	
-20.25	20.25	-7.56	7.56
-1.485	-2.97	-9.72	-4.86
-21.735	17.28	-17.28	2.7

	0.234	0.766	
-7.4	-7.4	39.7	39.7
-3.78	-7.56	-24.74	-12.37
-11.18	-14.96	14.96	27.33

+ 2.26 x
جواب سال

-47	-16.5	16.5	64.5
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$$\frac{23.945}{10.59} = 2.26$$

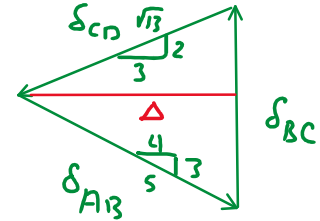
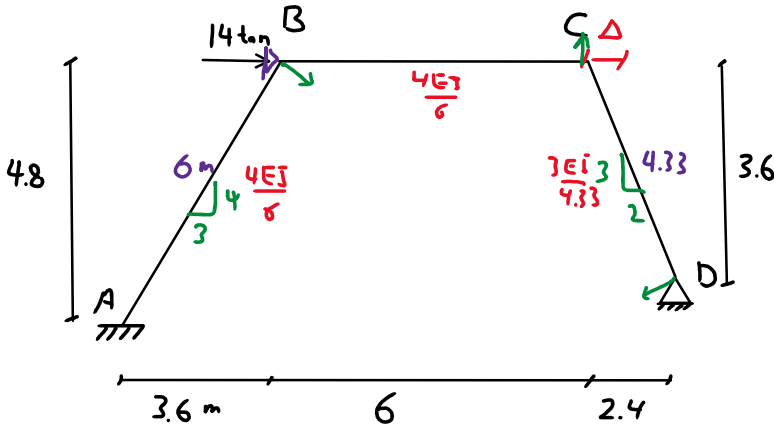
ضریب مقیاس برای
سازه تحت Δ

$$E\Delta = 226$$

قاب شیبدار

مثال: تکرمان انتقایی اعضا را به دست آورید.

1 Δ
2 θ درجه آزاد



$$FEM_{AB} = FEM_{BA} = -\frac{6EI}{6^2} \times 1.25\Delta = -0.208 E\Delta$$

$$FEM_{BC} = FEM_{CB} = \frac{6EI}{6^2} \times 1.417\Delta = 0.236 E\Delta$$

$$FEM_{CD} = -\frac{3EI}{4.33^2} \times 1.202\Delta = -0.192 E\Delta$$

$$\delta_{AB} = \frac{5}{4}\Delta = 1.25\Delta$$

$$\delta_{BC} = \frac{3}{4}\Delta + \frac{2}{3}\Delta = 1.417\Delta$$

$$\delta_{CD} = \frac{\sqrt{13}}{3}\Delta = 1.202\Delta$$

