$$AB = \frac{50}{-0.5345} = -70.7$$

AB = 70.7 kN (compressional.)

Members	P(kN)	L(m)	a(m²)	P = P/a (kN/m²)	u	Pul
Af	-70.71	4.24	0.0004	-176775	-0.471	353026.75
AB	50	3	0.0004	125000	0.333	124875
BC	50	3	0.0004	125000	0.666	249780
Bf	50	3	0.0004	125000	0.333	124875
fE	50	3	0.0004	125000	-0.333	124875
BE	0	4.24	0.0004	0	-0.471	0
EC	50	3	0.0004	125000	1.000	375000
ED	-70.71	4.24	0.0004	-176775	-0.942	706083.48
CD	50	3	0.0004	125000	0.666	249730
						Σ 2058455.24

$$\frac{\Sigma Pul}{E} = \frac{2058455.24}{200000} = 10.29 \text{ m}$$

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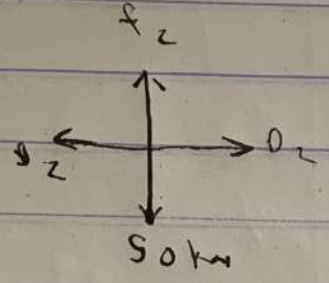
17/ENG03/011
Civil Engineering.

At joint C



From previous calculated example

$BL = 50kN$

$\therefore -BL + DL = 0$

$-50 + DL = 0$

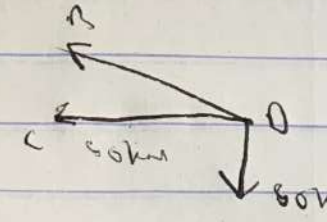
$DL = 50kN$ (tensional)

Resolving vertical

$-50kN + FL = 0$

$FL = 50kN$ (Tensional)

At joint D



Resolving horizontal $= -50kN - DE\cos 48 = 0$

$50kN = -DE\cos 48$