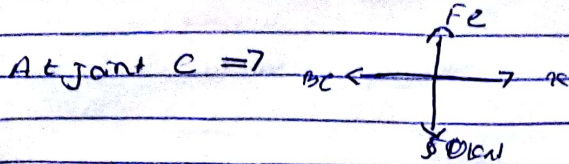


$P$ (kW)	$l$ (m)	$a$ (cm <sup>2</sup> )	$P = \frac{P}{a}$ (kW/cm <sup>2</sup> )	$u$
-70.71	4.24	0.0004	-176775	-0.471
50	3	0.0004	125000	0.333
50	3	0.0004	125000	0.666
50	3	0.0004	125000	0.333
50	3	0.0004	125000	-0.333
0	4.24	0.0004	125000 0	-0.471
50	3	0.0004	125000	1.000
-70.71	4.24	0.0004	-176875	-0.942
50	3	0.0004	125000	0.666
		0.0004		1

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17/eng03/019

Civil engineering  
Structural mechanics



From previous calculated example

$$BC = 50 \text{ kN}$$

$$\therefore -BC + DC = 0 \text{ (Resolving to horizontal)}$$

$$-50 + DC = 0$$

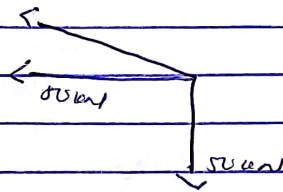
$$DC = 50 \text{ kN (Compression)}$$

Resolving to vertical

$$\Rightarrow -50 \text{ kN} + FC = 0$$

$$FC = 50 \text{ kN (Tension)}$$

At joint D



$$\text{Resolving to the horizontal} = -50 \text{ kN} - 0 \cos 45^\circ = 0$$

$$50 \text{ kN} = -0 \sin 45^\circ$$

$$DE = 50 = -70.7$$

$$-105.4$$

$$DE = 70.7 \text{ compression}$$