

Problem Set 4

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Question 3

Explanation:

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A = 6, B = 7

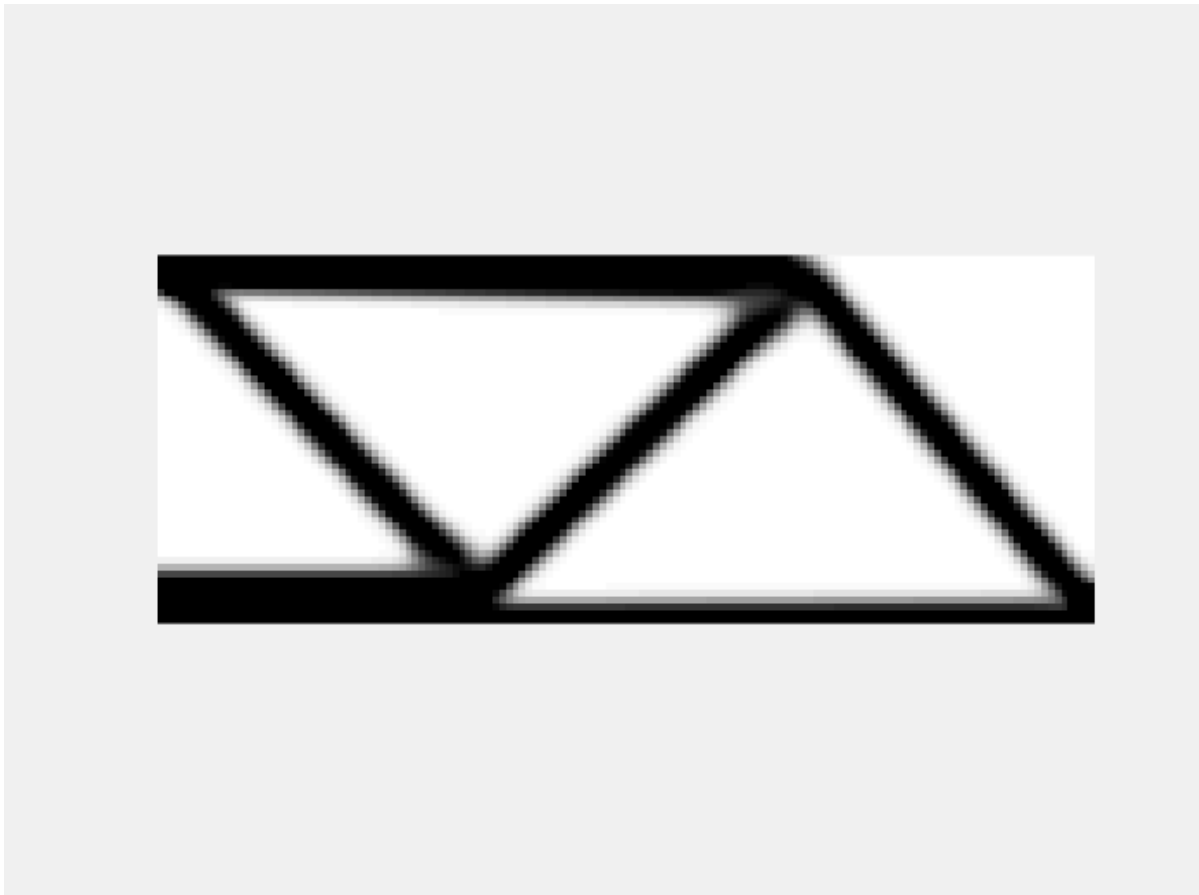
$NeI_x = 80 + 10 \cdot A = 140$

$NeI_y = 20 + 5 \cdot B = 55$

The code to run in Matlab is

```
>> top(140, 55, 0.3, 3, 3)
```

Output:



Explanation:

The final optimised topology from the penalisation factor of three has steps and grey regions in the points of the truss where the members connect. The choice for this factor is heuristically derived.