

Assessment 01

1. Create the part in NX using the following values for the given variables. Use the unit system MMGS, and material as Alloy Steel (density = 7700 kg/m³). The cut-outs on the webs are on both sides (there should be 4 total).

$$A = 100$$

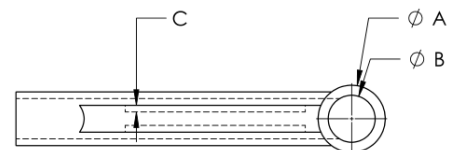
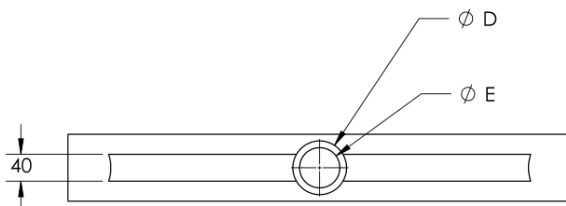
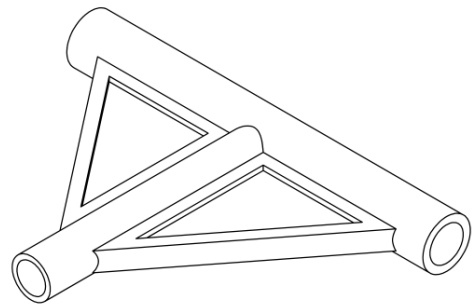
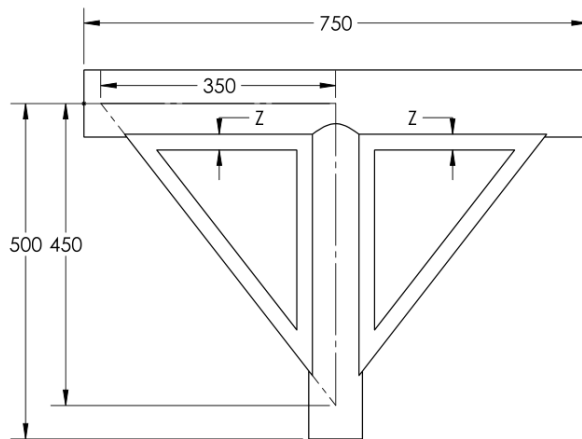
$$B = 70$$

$$C = 10$$

$$D = 80$$

$$E = 60$$

$$Z = (C+E)/3$$



What is the mass of the part in grams?

- a) 6702.59
- b) 26207.45
- c) 53501.76
- d) 51609.93

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- Isometric view of a mechanical part with the following dimensions and features:
- Top surface: $\phi 32$ hole, 10 mm thickness, R3 fillet.
 - Front face: 2 HOLES $\phi 10$, R12 fillet, 60 mm width, 70 mm height, 150 mm length.
 - Side face: R12 fillet, 25 mm width, 10 mm height, R3 fillet, 25 mm width, R6 fillet, 10 mm height, 40 mm length.
 - Bottom face: R3 fillet, 10 mm height, R12 fillet, 10 mm height, R25 fillet, 88 mm length, 66 mm height, 16 mm width, $\phi 38$ hole.
 - Section lines A-A and B-B are indicated.

