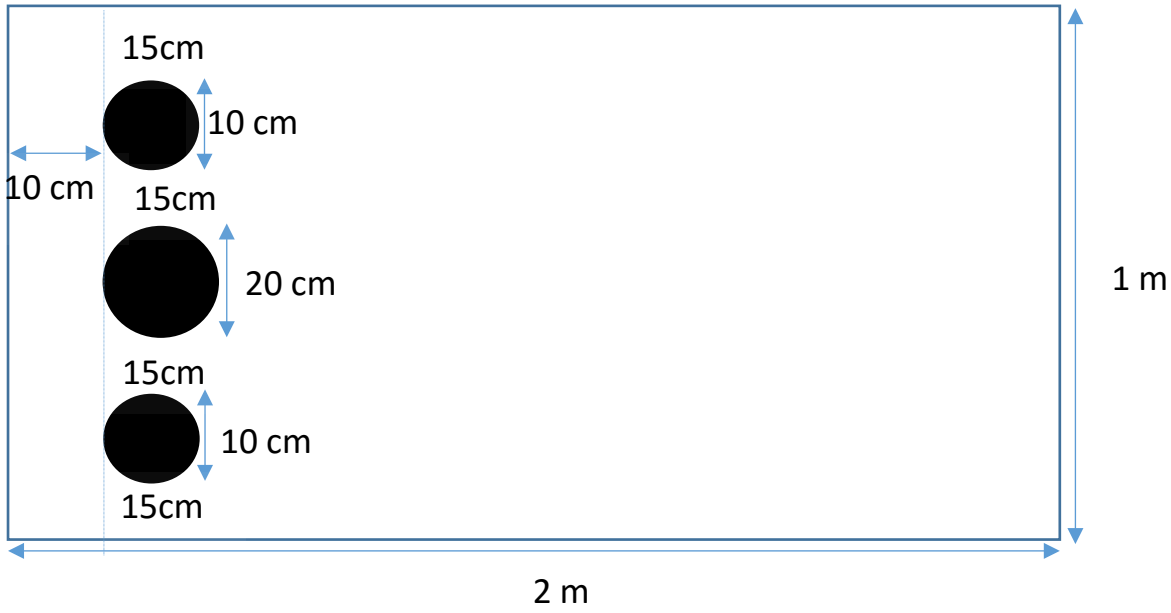
Centroid Central

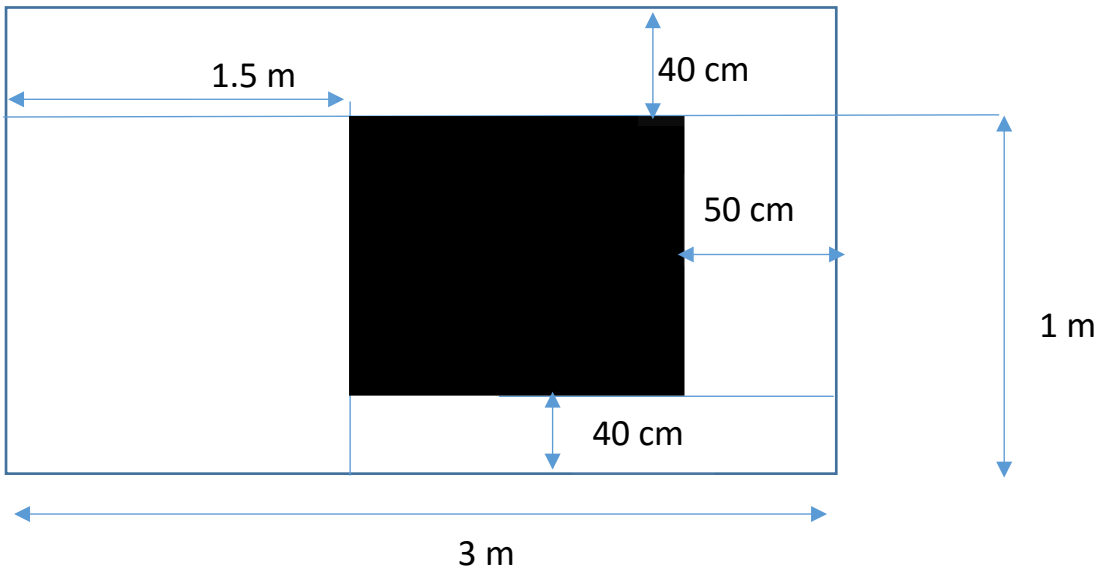
1. Find the centroid of the following laminae:



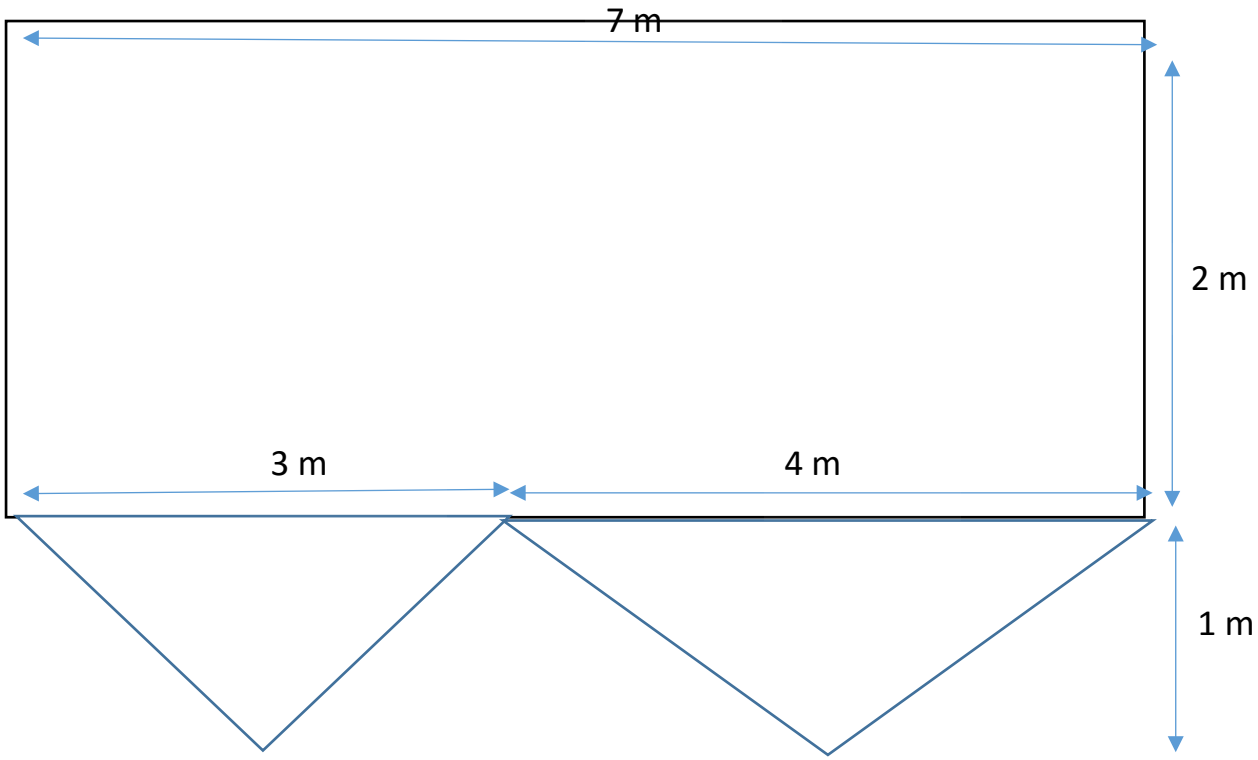
2. Find the centroid of this lamina two ways:

a) Evaluating it as being made of 4 rectangles.

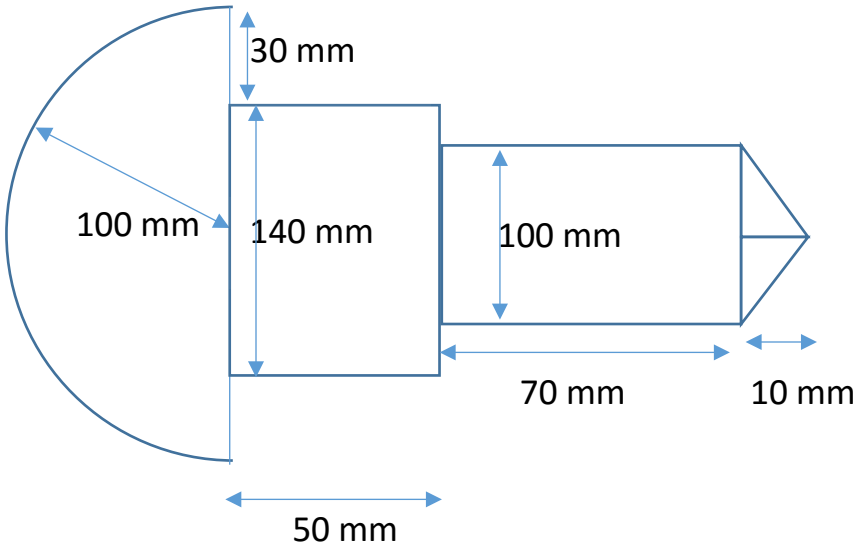
b) Evaluating it as being made of a large rectangle with a rectangular hole.



3. Find the centre of mass of this lamina, assuming the density of the rectangle is 1000 g/cm^2 and the density of the two triangles is 800 g/cm^2. Assume both triangles to be isosceles. (This means that they can be treated as two back-to-back right triangles.)



4. Find the centre of area of this lamina. You may exploit symmetry.



5. Find the centre of mass of this lamina. The rectangle has a density of 300 g/cm^2 and the triangle has a density of 400 g/cm^2